

Summary of British Columbia Herring Biological Sampling Data for the 1998-99 Season

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LIST OF TABLES

	Page
Table 1. Codes for British Columbia herring sampling data.	5
Table 2. Maturity stages for Pacific herring.....	6
Table 3. Biological sampling information by statistical area, section, and location for the 1998-99 season.	8
Table 4. 1999 test fishing vessels, areas and dates of operation, and number of samples processed.	14
Table 5. Percent at age for 1999 seine roe samples, gillnet roe samples, and test fishing samples.....	15
Table 6. 1999 roe herring fishery / catch information.....	16
Table 7. Sample summary by source and area	17
Table 8. Trawl research sample summaries by section	18
Table 9. Seine research samples summaries by section.....	21
Table 10. Food and bait fishery sample summaries by section	23
Table 11. Seine roe fishery sample summaries by section.....	28
Table 12. Gillnet roe fishery sample summaries by section.....	34
Table 13. Spawn on kelp fishery sample summaries by section.....	43
Table 14. Test fishing sample summaries by section	50
Table 15. Test fishing sample summaries by statistical area.....	73
Table 16. NTC sample summaries by section	86

LIST OF FIGURES

	Page
Fig. 1. Herring sections in the Queen Charlotte Islands region.....	89
Fig. 2. Herring sections in the Prince Rupert District region.	91
Fig. 3. Herring sections in the Central Coast region.	93
Fig. 4. Herring sections in the Johnstone Strait region.	95
Fig. 5. Herring sections in the Strait of Georgia region.	97
Fig. 6. Herring sections in the west coast of Vancouver Island region.....	99
Fig. 7. Herring stock assessment regions in British Columbia.	101

ABSTRACT

Midgley P., and L. Hamer. 1999. Summary of British Columbia herring biological sampling data for the 1998-99 season. Can. Data Rep. Fish. Aquat. Sci. 1056: 101 p.

Age compositions and the average length and weight at age, the sex ratio, and the maturity states of herring samples combined by geographical area, time period, gear type, and source are tabulated for the 1998-99 season. Tables are given for two geographical groupings: statistical areas and herring sections.

Key words: herring samples, age composition, geographical groupings.

RÉSUMÉ

P. Midgley and L. Hamer. 1999. Summary of British Columbia herring biological sampling data for the 1998-99 season. Can. Data Rep. Fish. Aquat. Sci. 1056: 101 p.

Ce rapport présente la répartition par âge, la taille moyenne et le poids en fonction de l'âge, la proportion par sexe et l'état de maturité de l'harengs échantillonnés en 1998-1999, par région géographique, période de l'année, genre d'engin de pêche et provenance. Les tableaux sont divisés en deux regroupements géographiques : zones statistiques et sections d'harengs.

Mots-clés : harengs échantillonnés, répartition par âge, regroupements géographiques



INTRODUCTION

Biological samples of herring are collected and processed annually for length, weight, sex, maturity, age, gonad weight, and gonad length. This information is used in stock assessments, and for determining stock characteristics. Additionally, it is useful to fishery managers located along the coast of British Columbia. The information presented here is for the 1998-99 herring season which extends from July 1, 1998 to June 30, 1999. This report summarizes biological characteristics by different gear and source types, as well as different levels of geographic aggregation. The smallest level of aggregation is by herring section (Figs. 1 - 6), which is a subdivision of Statistical Area. Stock assessments are conducted at a region level of geographic aggregation (Fig. 7).

Biological characteristics of individual fish collected annually since the 1950-51 season are maintained on computer files. These files provide a 49-year series of data accessible for analyses and modelling.

METHODS

The two main sources of biological samples are the roe herring test fishing program and roe herring fisheries. While a major objective of the test fishing program is to provide support for fisheries management, a secondary objective is to collect biological samples throughout the geographic range of herring spawning aggregations. Test fishing operations are conducted to ensure that the vessels are available before and during the main spawning run in each area. Roe herring fisheries are the main source of commercial samples. Fisheries for roe herring are sampled with the goal of collecting ten samples from each seine fishery, and six samples from each gillnet fishery. A sampling plan is designed for each fishery to ensure that the sample series collected accurately represents biological characteristics of the entire catch in time and gear distribution, for each gear type.

Additional commercial samples are collected from the fall food and bait fisheries, which are currently very small both in quota and in numbers of vessels eligible to participate (e.g. 17 vessels in the fall 1998 fishery). Consequently, each vessel participating in this fishery is expected to provide a biological sample from their catch.

As well as commercial and test fishing samples, small numbers of research samples are collected by Department of Fisheries and Oceans (DFO) vessels, and occasionally by chartered commercial vessels throughout the year. Samples with source code "4" (other) are collected from various sources that do not fit into the categories described above.

In most instances biological samples are frozen on board vessels and shipped to the Pacific Biological Station where they are processed following standard procedures described by Hamer (1989). Data codes are presented in Table 1.

Gonad maturities are classified according to a modified Hjort maturity scale (Table 2). Female roe maturities in the data summaries are defined as:

Immature	- Hjort stages 1 - 4
Mature	- Hjort stages 5 - 6
Spent	- Hjort stages 7 - 8.

Fish classified as immature in estimating the sex ratio are those whose gonads were not sufficiently developed for sex determination.

DATA COMPILATION AND SCREENING

The biological sample information from each sample is entered directly into a computer as the fish are processed, using a data entry program. The data are subsequently screened by computer for relationships between age, length, and weight which are outside the normal range for the coast as a whole (mean \pm 2 standard deviations). Anomalies are listed, and the associated data checked for possible errors in recording or coding.

AGE DETERMINATION

Age determination is based on the number of annuli on the scales. Herring ages are reported using the "year of life" convention. That is, fish in their first year are designated as age "0+". Herring "birthdays" are considered to be at spawning, and not on January 1, as is the convention for many other fish species.

A revised system of aging herring has been used since the 1987-88 season. Before that season, a fish was either assigned an age or was classified as unageable. With the revised aging system, the option of two possible ages was used when it was difficult to positively determine the age. At present there is no optimal procedure for incorporating these data into age composition estimates, so they continue to be treated as unageable. Therefore, the age compositions in this report are based only on fish for which a single age was assigned.

RESULTS

BIOLOGICAL SAMPLING AND AGE COMPOSITIONS

In the 1998/99 season 147 test fishing samples, 98 roe fishery samples, 30 "other" samples, 16 food and bait fishery samples, and 17 research samples were processed, bringing the total number for the season to 308 (Table 3 & 7). Twelve seine vessels, four gillnet vessels, three management platforms, two surface survey vessels and one dive platform were chartered to help manage the 1999 roe herring fisheries through hydro-acoustic surveys, test fishing, and spawn surveys. Details on the distribution of effort, and number of samples collected by chartered vessels are provided in Table 4. Roe fishery samples were collected from seine fisheries in areas 2, 7, 14 and 23, and from gillnet fisheries in areas 2, 4, 6, 7, 14, 24 and 25 (Table 6). The Nuuchah-nulth Tribal Council (NTC) collected 16 samples using a hand purse seine net, as part of a study designed to compare the characteristics of these samples with those of regular seine caught test fishing samples. Test fishing vessels collected 14 samples from spawn on kelp ponds, on an opportunistic basis. Food and bait fishery samples were taken from areas 13, 14, 17 and 18. Research samples were collected by the R/V W.E.Ricker during a herring year-class strength and production survey off the west coast of Vancouver Island. The R/V W.E.Ricker, while conducting a groundfish research cruise, provided incidental herring catch samples from area 19. The R/V Walker Rock collected DNA samples in area 14.

Age compositions for samples from the test fishery, and the seine and gillnet roe fisheries are summarized by section in Table 5.

The following types of information, with associated table numbers, are summarized in this report:

Codes for sample data	Table 1
Maturity stages for Pacific herring	Table 2
Listing of samples processed	Table 3
Charter vessel information	Table 4
1999 age compositions	Table 5
Roe herring fishery summaries	Table 6
Data summaries	Tables 7 - 15.

The data summaries include various groupings of samples by geographical areas, gear types, and source types. Each summary contains information on the age composition, the average length and weight at age, the sex ratio, and the maturity stages of the combined samples in that report.

ACKNOWLEDGMENTS

The Fish Ageing Unit at the Pacific Biological Station determined the ages. J.O.Thomas and Associates Ltd. collected the roe fishery samples, and Tideview Services processed all samples.

REFERENCES

- Bowers, A.B., and F.G.T. Holliday. 1961. Historical changes in the gonad associated with the reproductive cycle of the herring (Clupea harengus L.). Mar. Res. Scot. 5: 16 p.
- Hamer, L. 1989. Procedures for collecting and processing British Columbia herring samples. Can. Manuscr. Rep. Fish. Aquat. Sci. 2030: 27 p.

Table 1. Codes for British Columbia herring sampling data.

<u>A. Gear</u>		<u>B. Source</u>	
19	Gillnet	0	Roe fishery
29	Seine	1	Bait fishery
20	Salmon seine	2	Research - inshore
21	Other seine	3	Research - offshore
70	Beach seine	4	Other
50	Other trawl	5	Test Fishery
59	Herring trawl	6	Food Fishery
01	Other	7	Reduction Fishery
 <u>C. Preservation</u>		 <u>D. Sex</u>	
0	Frozen	1	Male
1	Fresh	2	Female
2	Salted	3	Unknown
3	Other		
4	Brined		

Table 2. Maturity stages for Pacific herring (adapted from Bowers and Holliday 1961; Parrish and Saville 1965). These descriptions are intended as general guidelines. Length of time samples have been frozen, thawing time, and different handling procedures may alter the colour of the gonads. Therefore, the texture of the gonad is also used to assess maturity. The timing description is also a general guideline due to the wide range in spawn timing on the British Columbia coast.

Stage	State of Maturity	Gonad appearance	Description	Timing
I	Undeveloped	Thread-shaped	Virgin herring with small gonads, less than 2 mm broad. Accurate macroscopic determination of sex not possible. Fat is visible in the body cavity.	Year-round for young herring usually less than 150 mm in length. (However, some herring as small as 125 mm may have mature gonads.)
II	Starting	Ribbon-shaped	Gonads increased in breadth to 3-5 mm. Sex determination difficult. Testes reddish-grey coloured and knife-shaped. Ovaries reddish-wine coloured and bullet-shaped at tip. (The gonads of virgins and some repeat spawners cannot be differentiated macroscopically.) Fat is visible in the body cavity.	Late spring and early summer.
III	Developing	Tube-like	Gonads thickened, increased in breadth (5-15 mm) and elongated, but not extending full length of body cavity. Ovaries red to reddish-orange, granular in appearance, and bullet-shaped at the tip. Testes reddish-grey, smooth in appearance, and knife-shaped.	Usually late summer to early fall, but may extend into winter and early spring.
IV	Maturing	Prominent	Gonads extend full length of body cavity. Ovaries reddish-orange to yellow; eggs distinguishable, opaque, variable in size and separate. Testes	Usually late fall and winter, but may extend to as late as March. (Slightly earlier in males than

Table 2 (cont'd)

Stage	State of Maturity	Gonad appearance	Description	Timing
V	Mature	Bulging	<p>mostly grey, firmer, and will ooze milt if sliced with a knife. Blood vessels often clearly visible in the ovary and testes walls.</p> <p>Few or no blood vessels visible in gonad walls. Walls of body cavity thin. Ovaries gold-yellow, firm and will often break into sections. Eggs mostly transparent and uniform in size. Testes usually milk-white, soft and plump; and milt will flow under pressure.</p>	<p>Mid-winter to late spring.</p> <p>females.)</p>
VI	Ripe	Running	<p>Gonads do not hold their shape. Ovaries look and feel gelatinous. Segmentation is lost. Eggs are transparent and sticky to the touch. Testes runny, and have a curdled appearance. Milt flows easily without external pressure.</p>	A few days prior to spawning (usually in late winter to spring).
VII	Spent	Baggy	<p>Gonads slack. Sex determination difficult. Ovaries may contain a few residual eggs. Testes limp and bloodshot. Body wall thin and no fat present; blood in body cavity.</p>	Spring for the first few weeks following spawning.
VIII	Recovering	Compressed	<p>Gonads wide-coloured and usually longer, fuller and not as slack as Stage VII. Blood vessels prominent. Little or no fat in the body cavity.</p>	Late spring and early summer.

Table 3. Biological sampling information by statistical area, herring section, and location for the 1998 - 99 season.

Area	Sect	Location	Sample Number	Year	Month	Day	Gear	Source	Pres	No. of Fish	
										Sampled	Aged
21	219	SWIFTSURE BANK	1	98	8	1	59	3	0	100	84
23	239	FORTY MILE BANK	2	98	8	1	59	3	0	100	54
13	132	DEEPWATER BAY	3	98	12	11	29	6	0	100	96
17	172	GABRIOLA IS. (N. SHORE)	4	98	11	26	29	6	0	100	80
17	173	PYLADES CHANNEL	5	98	11	8	29	6	0	100	97
17	173	NORTHUMBERLAND CHANNEL	6	98	11	7	29	6	0	100	95
17	173	TRINCOMALI CHANNEL	7	98	11	9	29	6	0	100	96
23	239	FORTY MILE BANK	8	98	8	1	59	3	0	100	94
23	239	SOUTH WEST CORNER +	9	98	7	31	59	3	0	100	76
17	173	PYLADES CHANNEL	10	98	11	8	29	6	0	100	94
23	239	FORTY MILE BANK	11	98	7	30	59	3	0	100	88
17	173	WALLACE ISLAND	12	98	11	23	29	6	0	100	97
18	182	SATURNA ISLAND	13	98	11	30	29	6	0	100	77
17	173	TRINCOMALI CHANNEL	14	98	11	30	29	6	0	100	82
17	173	NORTHUMBERLAND CHANNEL	15	98	12	2	29	6	0	100	96
17	173	NORTHUMBERLAND CHANNEL	16	98	12	1	29	6	0	100	93
17	172	GABRIOLA IS. (N. SHORE)	17	98	12	2	29	6	0	100	96
17	172	NEWCASTLE IS. EAST	18	98	12	2	29	6	0	100	86
14	143	NORTHWEST BAY	19	98	12	8	29	6	0	100	96
17	172	NEWCASTLE IS. EAST	20	98	12	3	29	6	0	100	93
17	173	TRINCOMALI CHANNEL	1	99	2	26	29	5	0	100	95
17	173	NORTHUMBERLAND CHANNEL	2	99	2	24	29	5	0	100	97
14	142	WHALEBONE POINT	3	99	3	4	29	2	0	81	78
14	142	WHALEBONE POINT	4	99	3	4	29	2	0	81	73
14	142	WHALEBONE POINT	5	99	3	4	29	2	0	81	78
14	142	WHALEBONE POINT	6	99	3	4	29	2	0	58	54
14	143	BOWSER	7	99	3	5	29	2	0	81	80
14	143	BOWSER	8	99	3	5	29	2	0	80	76
14	143	BOWSER	9	99	3	5	29	2	0	81	67
14	143	BOWSER	10	99	3	5	29	2	0	57	56
14	143	COTTAM POINT	11	99	3	2	29	5	0	100	88
14	142	NORMAN POINT	12	99	3	4	29	5	0	100	98
14	142	FLORA ISLET	13	99	3	3	29	5	0	100	87
17	172	ICARUS POINT	14	99	3	1	29	5	0	100	97
17	173	NORTHUMBERLAND CHANNEL	15	99	2	24	29	5	0	100	91
23	232	CHROW ISLANDS	16	99	3	1	29	5	0	100	95
18	181	SATELLITE CHANNEL	17	99	2	27	29	5	0	100	89
14	142	DENMAN ISLAND (WEST)	18	99	3	5	29	5	0	100	93
23	232	FORBES ISLAND	19	99	2	23	29	5	0	100	93
14	143	NORTHWEST BAY	20	99	3	7	29	5	0	100	93
14	142	REPULSE POINT	21	99	3	4	29	5	0	100	92
23	232	CHROW ISLANDS	22	99	2	28	29	5	0	100	95
27	273	WINTER HARBOUR	23	99	3	5	29	4	0	100	98
14	142	NORRIS ROCKS	24	99	3	2	29	5	0	62	39
27	272	KLASKISH INLET	25	99	3	7	29	5	0	100	94
27	272	KLASKISH INLET N. SHORE	26	99	3	9	29	5	0	100	92
17	173	GALIANO ISLAND	27	99	3	1	29	5	0	100	96
27	272	MCDUGAL ISLAND	28	99	3	6	29	5	0	100	97
27	273	WINTER HARBOUR	29	99	3	7	29	4	0	100	88
14	142	HORNBY ISLAND	30	99	3	2	29	5	0	100	95
14	142	GOOSE SPIT	31	99	3	4	29	5	0	100	95
14	142	DENMAN ISLAND	32	99	3	6	29	5	0	100	95
14	142	CHROME ISLAND	33	99	2	28	29	5	0	100	93
23	232	FORBES ISLAND	34	99	2	21	29	5	0	100	97
17	172	MAUDE ISLAND	35	99	2	25	29	5	0	100	97
23	232	CHROW ISLANDS	36	99	2	25	29	5	0	100	87
14	142	METCALF BAY	37	99	3	5	29	5	0	100	90
14	142	GARTLEY POINT	38	99	3	3	29	5	0	100	92

Table 3. Biological sampling information by statistical area, herring section, and location for the 1998 - 99 season.

Area	Sect	Location	Sample Number	Year	Month	Day	Gear	Source	Pres	No. of Fish	
										Sampled	Aged
14	142	FLORA ISLET	39	99	2	28	29	5	0	100	94
14	142	COMOX BAR	40	99	3	4	29	5	0	100	94
14	142	HENRY BAY	41	99	3	4	29	5	0	100	97
17	173	DE COURCY ISLAND	42	99	3	15	29	5	0	100	92
17	173	DE COURCY ISLAND	43	99	3	18	29	5	0	100	91
14	142	KOMAS BLUFF	44	99	3	2	29	5	0	100	95
14	142	REPULSE POINT	45	99	3	10	29	5	0	100	94
17	173	LINK ISLAND	46	99	3	17	29	5	0	100	95
14	142	LONGBEAK POINT	47	99	2	26	29	5	0	100	96
17	173	LINK ISLAND	48	99	3	20	29	5	0	100	98
23	232	FORBES ISLAND	49	99	3	10	29	5	0	100	95
23	232	SPILLING ISLET	50	99	3	18	29	5	0	100	91
14	142	PHIPPS POINT	51	99	3	2	29	5	0	100	95
23	232	CHROW ISLANDS	52	99	3	4	29	5	0	100	98
14	142	HORNBY ISLAND	53	99	3	1	29	5	0	100	92
14	142	WHITE SPIT	54	99	3	10	29	5	0	100	92
14	142	LONGBEAK POINT	55	99	2	28	29	5	0	100	80
23	232	FORBES ISLAND	56	99	3	18	29	5	0	100	92
23	232	CHROW ISLANDS	57	99	3	4	29	5	0	100	88
23	232	DAVID ISLAND	58	99	3	10	29	5	0	100	97
23	232	CHROW ISLANDS	59	99	3	13	29	5	0	100	95
23	232	FORBES ISLAND	60	99	3	6	29	5	0	100	93
23	232	DAVID ISLAND	61	99	3	7	29	5	0	100	95
23	232	BRYANT ISLANDS	62	99	3	16	29	5	0	100	97
23	232	CAPSTAN ISLAND	63	99	3	18	29	5	0	100	83
23	232	DAVID ISLAND	64	99	3	5	29	5	0	100	94
23	232	BRYANT ISLANDS	65	99	3	9	29	5	0	100	97
23	232	ROWLANDS ISLET	66	99	3	15	29	5	0	100	92
23	232	DAVID ISLAND	67	99	3	10	29	5	0	100	94
14	143	FRENCH CREEK	68	99	3	18	29	2	0	100	96
14	143	FRENCH CREEK	69	99	3	18	29	2	0	80	76
14	143	FRENCH CREEK	70	99	3	18	29	2	0	100	94
7	72	SPILLER INLET	71	99	3	18	29	5	0	81	73
7	74	BODDY PASSAGE/NARROWS	72	99	3	22	29	5	0	100	97
6	67	KITASU BAY	73	99	3	20	29	5	0	100	98
8	85	KWAKSHUA CHANNEL	74	99	3	15	29	5	0	100	94
7	78	NEEKAS INLET	75	99	3	16	29	5	0	100	95
7	72	SPILLER CHANNEL	76	99	3	15	29	5	0	100	91
6	67	KITASU BAY	77	99	3	10	29	5	0	100	93
8	85	PRUTH BAY	78	99	3	26	29	5	0	100	97
7	78	ELLERSLIE BAY	79	99	3	18	29	5	0	100	99
8	85	ILLAHIE INLET	80	99	3	25	1	4	0	100	94
7	77	PIDWELL REEF	81	99	3	13	29	5	0	100	93
7	72	SPILLER CHANNEL	82	99	3	16	29	5	0	100	92
6	67	KITASU BAY	83	99	3	21	29	5	0	100	94
7	77	EAST HIGGINS PASS	84	99	3	15	29	5	0	100	97
7	77	EAST HIGGINS PASS	85	99	3	15	29	5	0	100	94
6	67	HARTNELL POINT	86	99	3	14	29	5	0	100	97
7	77	EAST HIGGINS PASS	87	99	3	12	29	5	0	100	93
25	253	NUCHATLITZ INLET	88	99	3	6	21	4	0	100	95
25	253	NUCHATLITZ INLET	89	99	3	6	21	4	0	100	94
25	253	NUCHATLITZ INLET	90	99	3	6	21	4	0	100	93
25	253	NUCHATLITZ INLET	91	99	3	7	21	4	0	100	93
7	77	EAST HIGGINS PASS	92	99	3	20	29	5	0	100	97
6	67	SWINDLE ISLAND	93	99	3	18	29	5	0	100	97
25	253	NUCHATLITZ INLET	94	99	3	7	21	4	0	100	95
7	78	NEEKAS INLET	95	99	3	17	29	5	0	100	96
7	74	STRYKER BAY	96	99	3	21	29	4	0	100	95

Table 3. Biological sampling information by statistical area, herring section, and location for the 1998 - 99 season.

Area	Sect	Location	Sample Number	Year	Month	Day	Gear	Source	Pres	No. of Fish	
										Sampled	Aged
25	253	NUCHATLITZ INLET	97	99	3	7	21	4	0	100	93
14	142	DEEP BAY	98	99	3	5	29	5	0	100	88
14	142	MUD BAY - BAYNES SOUND	99	99	3	5	29	0	0	100	89
14	142	MUD BAY - BAYNES SOUND	100	99	3	6	29	0	0	100	89
14	142	DEEP BAY	101	99	3	6	29	0	0	100	83
14	142	DENMAN ISLAND (WEST)	102	99	3	5	29	0	0	100	92
14	142	DEEP BAY	103	99	3	5	29	0	0	83	75
14	142	FILLONGLEY PARK	104	99	3	5	19	0	0	100	76
14	142	LAMBERT CHANNEL	105	99	3	5	19	0	0	100	82
14	142	DEEP BAY	106	99	3	6	29	0	0	100	90
14	142	FILLONGLEY PARK	107	99	3	6	19	0	0	100	77
14	142	METCALF BAY	108	99	3	5	29	0	0	100	71
23	232	DAVID ISLAND	109	99	3	11	29	0	0	100	91
14	142	FILLONGLEY PARK	110	99	3	4	19	0	0	69	62
23	232	DAVID ISLAND	111	99	3	10	29	0	0	100	84
14	142	FORD COVE	112	99	3	6	19	0	0	100	77
14	142	FILLONGLEY PARK	113	99	3	4	19	0	0	100	77
23	232	ST. INES ISLAND	114	99	3	11	29	0	0	100	97
23	232	BRYANT ISLANDS	115	99	3	11	29	0	0	100	86
23	232	DAVID ISLAND	116	99	3	11	29	0	0	100	85
23	232	ST. INES ISLAND	117	99	3	10	29	0	0	100	92
7	74	DUNDIVAN INLET	118	99	3	20	29	5	0	86	84
7	78	NEEKAS INLET	119	99	3	15	29	5	0	100	93
7	72	SPILLER INLET	120	99	3	16	29	5	0	100	99
7	74	DUNDIVAN INLET	121	99	3	12	29	5	0	100	96
7	72	SPILLER INLET	122	99	3	15	29	5	0	100	95
7	78	NEEKAS INLET	123	99	3	16	29	5	0	100	97
7	74	DUNDIVAN INLET	124	99	3	9	29	5	0	100	97
7	78	JAMES BAY	125	99	3	23	29	5	0	100	90
7	74	DUNDIVAN INLET	126	99	3	20	29	5	0	100	94
7	72	BERRY INLET	127	99	3	18	29	5	0	100	95
7	74	DUNDIVAN INLET	128	99	3	18	29	5	0	100	99
7	74	RAYMOND PASS	129	99	3	7	29	5	0	100	97
7	78	NEEKAS INLET	130	99	3	7	29	5	0	100	98
7	74	DUNDIVAN INLET	131	99	3	21	29	5	0	100	97
7	72	SPILLER INLET	132	99	3	18	29	5	0	100	97
7	72	SPILLER INLET	133	99	3	11	29	5	0	100	97
7	74	DUNDIVAN INLET	134	99	3	20	29	5	0	100	94
7	78	ELLERSLIE BAY	135	99	3	14	29	5	0	100	98
7	74	DUNDIVAN INLET	136	99	3	19	29	5	0	100	97
7	78	NEEKAS INLET	137	99	3	13	29	5	0	100	86
24	242	HESQUIAT HARBOUR	138	99	3	11	19	4	0	85	79
25	252	MCKAY PASSAGE	139	99	3	18	29	4	0	100	92
4	42	BIG BAY	140	99	3	13	29	5	0	100	98
23	232	DAVID ISLAND	141	99	3	31	21	4	0	100	96
5	52	KITKATLA INLET	142	99	3	24	29	5	0	100	99
23	232	ST. INES ISLAND	143	99	3	30	29	5	0	100	90
4	42	TREE BLUFF	144	99	3	16	29	5	0	100	92
4	42	TREE BLUFF	145	99	3	15	29	5	0	100	97
4	42	BIG BAY	146	99	3	19	29	5	0	100	94
23	232	DAVID ISLAND	147	99	3	31	21	0	0	100	95
4	42	HOGAN LEDGE	148	99	3	14	29	5	0	100	97
23	232	DAVID ISLAND	149	99	3	11	29	5	0	100	96
23	232	BRYANT ISLANDS	150	99	3	12	29	5	0	100	95
5	52	GURD ISLAND	151	99	3	18	29	5	0	100	97
5	52	KITKATLA CREEK	152	99	3	26	29	5	0	100	93
24	243	HOT SPRINGS COVE	153	99	3	23	19	4	0	100	76
5	52	WILLIS BAY	154	99	3	20	29	5	0	100	93

Table 3. Biological sampling information by statistical area, herring section, and location for the 1998 - 99 season.

Area	Sect	Location	Sample Number	Year	Month	Day	Gear	Source	Pres	No. of Fish	
										Sampled	Aged
5	52	ROBERT ISLAND	155	99	3	20	29	5	0	100	94
5	52	GURD INLET	156	99	3	22	29	5	0	100	96
4	42	FORTUNE POINT	157	99	3	12	29	5	0	100	97
5	52	WILLIS BAY	158	99	3	18	29	5	0	100	92
5	52	KITKATLA INLET	159	99	3	24	29	5	0	100	97
25	253	NUCHATLITZ INLET	160	99	3	5	19	0	0	70	56
25	253	NUCHATLITZ INLET	161	99	3	5	19	0	0	98	79
23	232	OTTAWAY ISLET	162	99	3	13	29	5	0	100	94
23	232	DAVID ISLAND	163	99	3	11	29	0	0	100	92
25	253	CENTRE ISLAND	164	99	2	25	29	5	0	100	94
23	232	DAVID ISLAND	165	99	3	13	29	5	0	100	98
25	253	NUCHATLITZ INLET	166	99	3	5	19	0	0	100	88
25	252	DISCOVERY POINT	167	99	2	28	29	5	0	100	92
14	142	LAMBERT CHANNEL	168	99	3	5	19	0	0	100	83
23	232	ST. INES ISLAND	169	99	3	8	29	5	0	100	91
23	232	DAVID ISLAND	170	99	3	9	29	0	0	100	94
14	142	LONGBEAK POINT	171	99	3	4	19	0	0	100	85
25	253	NUCHATLITZ INLET	172	99	3	5	19	0	0	100	92
25	253	ROSA HARBOUR	173	99	3	4	29	4	0	100	93
2E	21	SKAAT HARBOUR	174	99	3	12	29	0	0	100	97
25	253	CENTRE ISLAND	175	99	2	27	29	5	0	100	92
25	253	NUCHATLITZ INLET	176	99	3	5	19	0	0	100	82
25	253	ROSA HARBOUR	177	99	3	1	29	5	0	100	95
23	232	FORBES ISLAND	178	99	3	10	29	5	0	100	96
2E	25	REBECCA POINT	179	99	3	21	29	5	0	100	96
25	252	DISCOVERY POINT	180	99	3	7	29	5	0	100	100
24	243	BASEBALL COVE +	181	99	3	31	21	4	0	100	88
2E	21	WANDERER ISLAND	182	99	3	28	29	5	0	100	86
2E	21	SKAAT HARBOUR	183	99	3	12	29	0	0	100	90
4	42	FINLAYSON ISLAND WEST	184	99	3	9	29	5	0	100	95
2E	25	JEDWAY BAY	185	99	3	6	29	4	0	100	91
2E	21	WANDERER ISLAND	186	99	3	6	29	5	0	100	98
2E	21	SKAAT HARBOUR	187	99	3	10	29	0	0	100	88
2E	21	SKAAT HARBOUR	188	99	3	11	29	0	0	100	97
2E	21	SKAAT HARBOUR	189	99	3	12	29	0	0	100	85
2E	25	JEDWAY BAY	190	99	3	14	29	4	0	100	96
2E	21	SKAAT HARBOUR	191	99	3	21	29	5	0	100	98
2E	25	BOLKUS ISLANDS	192	99	3	3	29	5	0	100	99
24	243	BASEBALL COVE +	193	99	3	31	21	4	0	100	95
24	243	BASEBALL COVE +	194	99	3	31	21	4	0	100	91
2E	21	WANDERER ISLAND	195	99	3	10	29	0	0	100	96
2E	21	WANDERER ISLAND	196	99	3	6	29	5	0	100	96
2E	21	SKAAT HARBOUR	197	99	3	11	29	0	0	100	97
4	42	TREE BLUFF	198	99	3	19	29	5	0	100	96
23	232	ST. INES ISLAND	199	99	3	11	29	0	0	100	86
7	74	DUNDIVAN INLET	200	99	3	20	29	5	0	100	100
14	142	DEEP BAY	201	99	3	6	29	0	0	100	97
24	243	HOOTLA KOOTLA +	202	99	3	31	21	4	0	100	96
14	142	DENMAN ISLAND (EAST)	203	99	3	4	19	0	0	100	79
14	142	MUD BAY - BAYNES SOUND	204	99	3	5	29	0	0	100	87
23	232	FORBES ISLAND	205	99	3	10	29	0	0	100	83
24	243	BASEBALL COVE +	206	99	3	3	21	4	0	100	90
4	42	HOGAN LEDGE	207	99	3	18	29	5	0	100	98
7	72	MOSQUITO BAY	208	99	3	14	29	5	0	100	96
7	72	POWELL ANCHORAGE	209	99	3	20	29	4	0	100	94
14	142	SHINGLE SPIT	210	99	3	4	19	0	0	100	80
2W	2	PORT LOUIS	211	99	3	18	29	5	0	100	96
4	42	REEKS POINT	212	99	3	20	19	0	0	100	88

Table 3. Biological sampling information by statistical area, herring section, and location for the 1998 - 99 season.

Area	Sect	Location	Sample Number	Year	Month	Day	Gear	Source	Pres	No. of Fish	
										Sampled	Aged
2E	21	SKAAT HARBOUR	213	99	3	12	29	0	0	100	93
4	42	SIMPSON POINT	214	99	3	20	19	0	0	100	89
2E	21	SKAAT HARBOUR	215	99	3	10	29	0	0	100	95
7	72	SPILLER INLET	216	99	3	16	29	0	0	100	91
7	78	ELLERSLIE BAY	217	99	3	17	29	0	0	100	90
2E	21	BURNABY ISLAND NORTH	218	99	3	23	19	0	0	100	80
4	42	PEARL HARBOUR	219	99	3	22	19	0	0	100	94
7	77	EAST HIGGINS PASS	220	99	3	24	19	0	0	100	82
2E	21	BURNABY ISLAND NORTH	221	99	3	23	19	0	0	100	83
4	42	BIG BAY	222	99	3	20	19	0	0	100	92
7	72	SPILLER INLET	223	99	3	16	29	0	0	100	96
2E	21	SKAAT HARBOUR	224	99	3	13	29	0	0	100	99
7	72	SPILLER INLET	225	99	3	16	29	0	0	100	92
7	72	SPILLER INLET	226	99	3	16	29	0	0	100	96
7	72	SPILLER INLET	227	99	3	16	29	0	0	100	94
2E	21	SKAAT HARBOUR	228	99	3	12	29	0	0	100	80
2E	25	SWAN BAY	229	99	3	27	19	0	0	100	78
7	72	SPILLER INLET	230	99	3	16	29	0	0	100	96
7	72	SPILLER INLET	231	99	3	16	29	0	0	100	91
7	72	SPILLER INLET	232	99	3	16	29	0	0	100	93
4	42	BIG BAY	233	99	3	22	19	0	0	100	90
6	67	PRICE ISLAND	234	99	3	20	19	0	0	100	86
6	67	WEST HIGGINS PASSAGE	235	99	3	21	19	0	0	100	79
4	41	DUNDAS ISLAND SOUTH	236	99	3	24	19	0	0	100	86
2E	21	WANDERER ISLAND	237	99	3	10	29	0	0	100	91
2E	25	HUSTON INLET	238	99	3	26	19	0	0	100	96
4	42	TRENHAM POINT	239	99	3	21	19	0	0	100	97
6	67	PRICE ISLAND	240	99	3	19	19	0	0	100	94
4	42	SIMPSON POINT	241	99	3	20	19	0	0	100	85
24	243	SYDNEY INLET	242	99	4	1	19	0	0	100	87
24	243	SYDNEY INLET	243	99	4	1	19	0	0	100	75
24	243	SYDNEY INLET	244	99	4	1	19	0	0	100	90
2E	21	SKAAT HARBOUR	245	99	3	10	29	0	0	100	94
6	67	WEST HIGGINS PASSAGE	246	99	3	19	19	0	0	100	67
6	67	PRICE ISLAND	247	99	3	19	19	0	0	100	77
6	67	PRICE ISLAND	248	99	3	20	19	0	0	100	44
2E	25	BAG HARBOUR	249	99	3	24	19	0	0	100	85
23	232	DAVID ISLAND	250	99	3	11	29	0	0	100	91
6	67	PRICE ISLAND	251	99	3	20	19	0	0	100	89
2E	21	SKAAT HARBOUR	252	99	3	10	29	0	0	100	91
6	67	WEST HIGGINS PASSAGE	253	99	3	19	19	0	0	100	92
6	67	PRICE ISLAND	254	99	3	20	19	0	0	100	48
2E	21	SKAAT HARBOUR	255	99	3	10	29	0	0	100	95
2E	21	WANDERER ISLAND	256	99	3	10	29	0	0	100	88
2E	21	JUAN PEREZ SOUND	257	99	3	10	29	0	0	100	89
2E	25	HUSTON INLET	258	99	3	25	19	0	0	100	89
2E	21	BURNABY STRAIT	259	99	3	22	19	0	0	100	90
7	72	SPILLER INLET	260	99	3	17	29	0	0	100	93
6	67	WEST HIGGINS PASSAGE	261	99	3	21	19	0	0	100	85
14	142	DENMAN ISLAND (EAST)	262	99	3	7	19	0	0	100	58
27	273	WINTER HARBOUR	263	99	3	15	29	4	0	100	96
27	273	WINTER HARBOUR	264	99	3	15	29	4	0	100	97
24	243	SYDNEY INLET	265	99	4	1	19	0	0	100	66
23	233	EFFINGHAM INLET	266	99	3	4	29	5	0	5	5
23	232	STOPPER ISLANDS	267	99	2	27	29	5	0	100	94
19	191	SAANICH INLET	268	99	2	23	59	2	0	100	91
23	232	ST. INES ISLAND	269	99	3	11	29	0	0	100	90
24	243	HOT SPRINGS COVE	270	99	4	1	19	0	0	100	89

Table 3. Biological sampling information by statistical area, herring section, and location for the 1998 - 99 season.

Area	Sect	Location	Sample Number	Year	Month	Day	Gear	Source	Pres	No. of Fish	
										Sampled	Aged
14		142 FANNY BAY	271	99	3	5	29	0	0	100	94
6		67 PRICE ISLAND	272	99	3	19	19	0	0	100	84
24		243 HOT SPRINGS COVE	273	99	3	31	21	4	0	100	91
2W		2 PORT LOUIS	274	99	3	17	29	5	0	100	98
14		142 DEEP BAY	275	99	3	5	29	0	0	100	95
2W		5 PEEL INLET	276	99	3	24	29	5	0	100	96
2W		3 KANO INLET	277	99	3	2	29	5	0	100	97
2W		3 CLAPP BASIN	278	99	3	20	29	5	0	100	92
2W		3 RENNELL SOUND	279	99	3	19	29	5	0	100	100
2W		2 TINGLEY COVE	280	99	3	21	29	5	0	100	95
2W		3 SEAL INLET	281	99	3	19	29	5	0	100	95
24		243 SYDNEY INLET	282	99	4	1	19	0	0	100	84
27		273 WINTER HARBOUR	283	99	3	15	29	4	0	100	98
5		52 GURD POINT	284	99	3	25	29	5	0	100	95
17		173 NORTHUMBERLAND CHANNEL	285	99	1	11	29	6	0	100	95
2E		24 TRAYNOR CREEK	286	99	4	7	29	4	0	100	95
2E		24 TRAYNOR CREEK	287	99	4	7	29	4	0	100	96
14		143 MAPLEGUARD PT.	288	99	3	10	29	6	0	100	90

Table 4. 1999 Test fishing vessels, areas and dates of operation, number of sets made, and number of samples processed

REGION	VESSEL	STAT AREAS	DATES	# SETS MADE	# SAMPLES PROCESSED
QCI	Nimkish Producer Viking Pride	2E 2W	Mar 01 – Apr 01 Mar 15 - Mar 30	13 8	15*** 8
QCI TOTAL				21	23
PRINCE RUPERT DISTRICT	Argent Fisher Pacific Viking Northern Oasis*	4, 5 5 3, 4, 5	Mar 09 - Apr 03 Mar 17 – Apr 04 Mar 17 - Apr 23	14 6 --	13 5 --
PRD TOTAL				20	18
CENTRAL COAST	Pachena No.1 Christav Kynoc Ocean Explorer* Teri Christina**	7 6, 7 6, 7, 8 6, 7, 8, 9, 10 6, 7, 8	Mar 06 - Apr 04 Mar 09 - Apr 12 Mar 14 - Mar 28 Mar 13 - Apr 14 Mar 09 - Mar 29	25 14 14 -- --	19 11*** 12 -- --
CENT TOTAL				53	42
ST. OF GEORGIA	Pacific Viking Nita Maria Pacific Discovery Kynoc Endurance* Southern Provider* Vicious Fisher**	14 13, 14 14, 17 14, 17, 18 14, 17, 18 14, 17, 18 18	Feb 26 - Mar 09 Feb 22 - Mar 19 Feb 24 - Mar 21 Feb 24 - Mar 10 Mar 02- Apr 04 Mar 02- Apr 02 Feb 24 - Mar 16	2 17 19 15 3 5 --	2 7 13 15 -- -- --
ST. OF GEORGIA TOTAL				61	37
W COAST VANCOUVER ISLAND	Viking Spirit Royal Viking Karenora Venturous** Viking Pride	23 23, 24 23, 25 23, 25 27	Feb 20 - Mar 19 Feb 24 – Apr 07 Feb 24 – Apr 07 Feb 28 - Mar 13 Feb 26 – Mar 11	38 8 20 -- 5	22 1*** 13*** -- 5***
WCVI TOTAL				71	41
TOTAL				226	161

* - Gillnet test and spawn assessment - no samples collected

** - Management platform - no samples collected

*** - Samples also collected from outside sources (eg. SOK operators)

Table 5. Percent at age for 1999 seine roe samples, gillnet roe samples, and test fishing samples.

SECTION	SOURCE	GEAR	PERCENT AT AGE										NUMBER
			0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	AGED
2 PORT LOUIS	5	29	0	18	31	24	16	8	3	0	0	0	289
3 RENNELL SOUND	5	29	0	16	39	26	9	6	1	1	1	0	384
5 ENGLEFIELD BAY	5	29	0	7	9	49	29	4	1	0	0	0	96
21 JUAN PEREZ SOUND	0	19	0	0	0	31	20	32	9	3	2	2	253
21 JUAN PEREZ SOUND	0	29	0	4	2	65	17	8	3	1	0	0	1565
21 JUAN PEREZ SOUND	5	29	0	4	2	65	16	8	3	0	0	0	378
25 SKINCUTTLE INLET	0	19	0	0	1	30	25	27	10	3	1	3	348
25 SKINCUTTLE INLET	5	29	0	1	3	63	19	9	2	1	1	2	195
41 AREA 4 WEST	0	19	0	0	0	8	19	53	15	3	0	1	86
42 AREA 4 NORTH	0	19	0	0	0	11	16	49	13	5	2	3	635
42 AREA 4 NORTH	5	29	0	1	8	31	20	32	6	2	1	1	864
52 KITKATLA INLET	5	29	0	1	3	51	21	18	3	0	1	2	856
67 KITASU BAY	0	19	0	0	0	15	44	18	7	6	6	5	845
67 KITASU BAY	5	29	0	1	8	50	32	5	0	1	1	1	479
72 POWELL ANCHORAGE	0	29	0	0	5	35	38	10	2	3	3	2	842
72 POWELL ANCHORAGE	5	29	0	0	10	44	33	6	1	2	2	1	835
74 THOMPSON BAY	5	29	0	1	10	44	34	6	1	2	1	2	1052
77 MILBANKE SOUND	0	19	0	0	0	10	52	21	5	5	6	1	82
77 MILBANKE SOUND	5	29	0	1	8	53	31	4	1	1	1	0	474
78 DON PENINSULA	0	29	0	0	4	29	46	10	1	1	2	7	90
78 DON PENINSULA	5	29	0	0	11	41	31	6	3	4	3	1	852
85 KWAKSHUA CHANNEL	5	29	0	1	13	31	47	5	1	2	1	0	191
142 BAYNES SOUND	0	19	0	0	2	29	37	21	7	3	1	0	836
142 BAYNES SOUND	0	29	0	2	20	45	22	8	2	1	0	0	962
142 BAYNES SOUND	5	29	0	5	25	44	17	6	2	1	0	0	1986
143 QUALICUM	5	29	0	7	21	38	23	6	3	1	0	0	181
172 NANOOSE BAY	5	29	0	11	28	37	16	7	1	0	0	0	194
173 YELLOW POINT	5	29	23	9	21	25	15	5	1	1	0	0	754
181 SWANSON CHANNEL	5	29	0	34	55	10	1	0	0	0	0	0	89
232 MACOAH PASS	0	29	0	1	18	23	44	8	3	1	1	0	1071
232 MACOAH PASS	5	29	3	2	24	23	36	8	2	1	1	0	2622
233 IMPERIAL EAGLE CHANNEL	5	29	0	0	40	20	20	0	20	0	0	0	5
243 SYDNEY INLET	0	19	0	0	1	9	65	18	4	3	1	0	491
252 NOOTKA SOUND	5	29	0	2	16	27	40	8	4	3	1	1	192
253 ESPERANZA INLET	0	19	0	0	1	16	52	18	6	5	2	0	397
253 ESPERANZA INLET	0	29	0	0	32	33	26	6	0	3	0	0	94
253 ESPERANZA INLET	5	29	0	3	22	30	35	5	2	2	0	1	187
272 BROOKS BAY	5	29	0	7	33	27	28	4	1	0	0	0	283

Table 8. 1999 Roe herring fishery / catch information.

AREA	LICENCES	QUOTA	CATCH	% TOTAL CATCH	FISHERY	DURATION (Hours)
WCVI - SN B	53	3000	3210	11.0%	Open 1510 to 2034 Mar. 10 in Ptn 23-9, 23-10 & 23-11 Open 0530 to 1804 Mar. 11 in Ptn 23-9, 23-10 & 23-11	18.0
WCVI - GN B	115	1250	313	1.1%	Open 0300 to 1930 Apr. 1 Ptn 24-2 & 24-3	16.5
WCVI - GN E	72	750	749	2.6%	Open 1800 to Mar. 4 to 0800 Mar. 7 in 25-13	64.0
GULF - SN	73	5000	5104	17.5%	Open 1030 to 2020 Mar. 5 in 14-8 & 14-15 Open 0805 to 2142 Mar. 6 in 14-8 & 14-15 Open 1100 to 1700 Mar. 7 in 14-8 & 14-15	29.4
GULF - GN	* 654	7000	7296	25.0%	Open 1300 Mar. 4 to 1300 Mar. 7 in 14-1 to 14-7, Ptn 14-8, 14-9, 14-10, 14-12 & 14-13	72.0
C. COAST - SN	81	5500	5967	20.4%	Open 1200 to 2100 Mar. 16 in Ptn 7-14 Open 0800 to 2100 Mar. 17 in Ptn 7-14	22.0
C. COAST - GN	173	1500	1558	5.3%	Open 1300 Mar. 19 to 2100 Mar. 24 in 6-16, 6-17 & 7-31	128.0
N. COAST - GN	193	2000	2028	6.9%	Open 1600 Mar. 20 in 4-5 to 4-9 & Ptn 4-14 Expanded 0800 Mar. 23 to 3-3, 3-4 and to 3-5 1400 Mar. 25	118.0
QCI - SN	34	2500	2484	8.5%	Open 0700 in 2-13, expanded 0600 to 2-12 to 1915 Mar. 10 Open 0800 Mar. 11 to 2000 Mar. 13 in 2-12 & 2-13	74.2
QCI - GN	46	500	521	1.6%	Open 1400 Mar. 22 to 1800 Mar. 25 in 2-18 Open 1800 Mar. 25 in 2-15, expanded to 2-16 0700 Mar. 27, to 1430 Mar. 27	120.5
TOTAL - SN	241	16000	16765	57.4%		
TOTAL - GN	1255	13000	12465	42.6%		
TOTAL		29000	29230	100.0%		
					Seine Total	141.8
					Gillnet Total	519.0
					Total	660.8

* Strait of Georgia gillnet was double licensed. There were 327 vessels fishing.

CATCHES ARE VALIDATED LANDINGS IN TONS

WCVI - E = ESPERANZA

WCVI - B = BARKLEY

Table 7. Number of Samples by Source and Area for 1998/99

Area	Test Fishery	Roe fishery		Research		SOK	NTC	Food	Area Total
		Seine	Gillnet	Offshore	Inshore				
2W	8								8
2E	6	17	7			4			34
4	9		8						17
5	9								9
6	5		11						16
7	34	10	1			2			47
8	2					1			3
13								1	1
14	25	11	11		11			1	59
17	10							13	23
18	1							1	2
19					1				1
21				1					1
23	30	11		4			2		47
24			6				8		14
25	5		5			2	6		18
27	3					5			8
Fishery Total	147	49	49	5	12	14	16	16	308

Table 8. Trawl research sample summaries by section
=====

SECTION: 191 - SAANICH INLET
SAMPLE NUMBERS: 268,
SOURCE: RESEARCH - INSHORE
GEAR: HERRING TRAWL
DATE: FEB 23/99

SPECIMENS AT EACH AGE:		AGE											
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	% AT AGE	0	5	29	28	20	7	1	0	1	0	9	100
		0.00	5.49	31.87	30.77	21.98	7.69	1.10	0.00	1.10	0.00	0.00	100.00
LENGTH - MEAN(mm)		0.00	154.20	183.41	191.11	203.05	206.14	223.00	0.00	224.00	0.00	191.44	191.15
- STD. DEV.		0.00	23.41	11.47	10.65	9.71	7.34	0.00	0.00	0.00	0.00	11.09	16.54
WEIGHT - MEAN(gm)		0.00	49.00	78.34	90.71	112.15	117.29	138.00	0.00	140.00	0.00	96.56	92.68
- STD. DEV.		0.00	18.88	15.91	15.68	18.15	14.49	0.00	0.00	0.00	0.00	21.99	24.29

SHORT MATURITY STAGES:		MATURITY STAGE							
		1	2	3	4	5	6	7	8
NO. AT STAGE	% AT STAGE	1	0	1	58	30	0	0	0
		1.00	0.00	1.00	68.00	30.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):					SEX RATIO:					
=====					=====					
INMATURE					MALE					
MATURE					FEMALE					
SPENT					IMMATURE					
TOTAL					TOTAL					
NO.		33	7	0	40		59	40	1	100
%		82.50	17.50	0.00	100.00	%	59.00	40.00	1.00	100.00
% SAMPLE WEIGHT		16.19	4.27	0.00	20.46	MEAN WEIGHT	92.49	94.82	18.00	92.68
						% SAMP. WT.	58.88	40.93	0.19	100.00

Table 8. (cont'd) Trawl research sample summaries by section

SECTION: 219 - OFFSHORE AREA 21

SAMPLE NUMBERS: 1,

SOURCE: RESEARCH - OFFSHORE

GEAR: HERRING TRAWL

DATE: AUG 1/98

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	36	26	11	8	3	0	0	0	0	16	100
% AT AGE	0.00	42.86	30.95	13.10	9.52	3.57	0.00	0.00	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)	0.00	139.69	156.00	160.45	183.62	186.00	0.00	0.00	0.00	0.00	148.44	152.52
- STD. DEV.	0.00	7.83	8.50	10.62	16.98	20.42	0.00	0.00	0.00	0.00	14.81	17.27
WEIGHT - MEAN(gm)	0.00	35.64	51.15	55.73	82.25	88.33	0.00	0.00	0.00	0.00	43.44	48.44
- STD. DEV.	0.00	6.95	8.78	10.64	22.59	27.02	0.00	0.00	0.00	0.00	14.18	18.48

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	22	78	0	0	0	0	0	0	0
% AT STAGE	22.00	78.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL
NO.	9	0	0	9
%	100.00	0.00	0.00	100.00
% SAMPLE WEIGHT	0.00	0.00	0.00	0.00

	MALE	FEMALE	IMMATURE	TOTAL
NO.	3	9	88	100
%	3.00	9.00	88.00	100.00
MEAN WEIGHT	52.00	70.11	46.10	48.44
% SAMP. WT.	3.22	13.03	83.75	100.00

SEX RATIO:

=== =====

Table 8. (cont'd) Trawl research sample summaries by section

SECTION: 239 - OFFSHORE AREA 23

SAMPLE NUMBERS: 11, 9, 8, 2,

SOURCE: RESEARCH - OFFSHORE

GEAR: HERRING TRAWL

DATE: JUL 30/98 - AUG 1/98

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	77	125	82	25	3	0	0	0	0	88	400
% AT AGE	0.00	24.68	40.06	26.28	8.01	0.96	0.00	0.00	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)	0.00	141.95	169.09	178.61	185.44	198.00	0.00	0.00	0.00	0.00	150.03	162.86
- STD. DEV.	0.00	7.76	9.00	9.01	7.46	12.12	0.00	0.00	0.00	0.00	15.48	18.29
WEIGHT - MEAN(gm)	0.00	38.65	70.21	82.85	91.64	104.33	0.00	0.00	0.00	0.00	47.84	63.40
- STD. DEV.	0.00	6.67	11.07	11.96	11.43	23.46	0.00	0.00	0.00	0.00	18.06	22.00

SHORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	172	225	3	0	0	0	0	0	0
% AT STAGE	43.00	56.25	0.75	0.00	0.00	0.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL
NO.	67	0	0	67
%	100.00	0.00	0.00	100.00
% SAMPLE WEIGHT	0.00	0.00	0.00	0.00

SEX RATIO:

	MALE	FEMALE	IMMATURE	TOTAL
NO.	33	67	300	400
%	8.25	16.75	75.00	100.00
MEAN WEIGHT	81.85	73.96	59.01	63.40
% SAMP. WT.	10.65	19.54	69.81	100.00

Table 9. (cont'd) Seine research sample summaries by section

SECTION: 143 - QUALICUM

SAMPLE NUMBERS: 68, 9, 70, 69, 8, 7, 10,

SOURCE: RESEARCH - INSHORE

GEAR: HERRING SEINE

DATE: MAR 5/99 - MAR 18/99

SPECIMENS AT EACH AGE:

SPECIMENS AT EACH AGE:												
	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	27	152	210	109	34	8	3	0	1	34	578
% AT AGE	0.00	4.96	27.94	38.60	20.04	6.25	1.47	0.55	0.00	0.18	0.00	100.00
LENGTH - MEAN (mm)	0.00	153.59	177.19	187.64	195.38	205.91	220.37	218.67	0.00	222.00	188.65	186.57
- STD. DEV.	0.00	10.96	11.96	10.55	10.77	8.49	10.14	5.03	0.00	0.00	20.43	16.40
WEIGHT - MEAN (gm)	0.00	49.30	77.26	92.02	102.15	114.74	136.25	143.00	0.00	183.00	99.50	90.86
- STD. DEV.	0.00	11.03	17.14	18.73	19.49	17.47	13.36	10.39	0.00	0.00	32.64	24.72

HJORT MATURITY STAGES:

[illegible]

ROE MATURITY (FEMALE) :

ROE MATURITY (FEMALE):			SEX RATIO:		
=====			=====		
	IMMATURE	MATURE	SPENT	TOTAL	
NO.	2	200	75	277	
%	0.72	72.20	27.08	100.00	NO.
% SAMPLE WEIGHT	0.11	20.15	0.06	20.32	%
					MEAN WEIGHT
					% SAMP. WT.
					MALE
					FEMALE
					IMMATURE
					TOTAL
					578
					100.00
					90.86
					100.00

SECTION: 132 - DEEPWATER BAY

SAMPLE NUMBERS: 3,
SOURCE: FOOD FISHERY
GEAR: HERRING SEINE
DATE: DEC 11/98

SPECIMENS AT EACH AGE:

ECIMENS AT EACH AGE:		AGE											
=====		=====											
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	4	31	47	10	3	0	1	0	0	4	100
% AT AGE		0.00	4.17	32.29	48.96	10.42	3.13	0.00	1.04	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)		0.00	140.50	173.16	182.60	184.40	208.33	0.00	208.00	0.00	0.00	169.25	178.66
- STD. DEV.		0.00	10.75	11.70	13.51	10.72	5.69	0.00	0.00	0.00	0.00	8.06	16.15
WEIGHT - MEAN(gm)		0.00	32.75	66.81	82.87	84.90	122.33	0.00	107.00	0.00	0.00	64.25	76.77
- STD. DEV.		0.00	10.21	13.62	18.09	16.10	15.82	0.00	0.00	0.00	0.00	16.09	21.45

HJORT MATURITY STAGES:	0000000000
------------------------	------------

PORT MATURITY STAGES:		MATURITY STAGE								
		1	2	3	4	5	6	7	8	
NO. AT STAGE		0	8	59	33	0	0	0	0	0
% AT STAGE		0.00	8.00	59.00	33.00	0.00	0.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):

AGE MATURITY (FEMALE) :				SEX RATIO:			
=====				=====			
	IMMATURE	MATURE	TOTAL		MALE	FEMALE	TOTAL
NO.	52	0	52	NO.	44	52	4
%	100.00	0.00	100.00	%	44.00	52.00	4.00
%	6.27	0.00	6.27	MEAN WEIGHT	75.61	81.29	30.75
%				%	43.34	55.06	1.60
%				%			100.00

Table 10. (cont'd) Food and bait fishery sample summaries by section.

SECTION: 143 - QUALICUM
 SAMPLE NUMBERS: 19,
 SOURCE: FOOD FISHERY
 GEAR: HERRING SEINE
 DATE: DEC 8/98

SPECIMENS AT EACH AGE:									
=====									
	0+	1+	2+	3+	4+	5+	6+	7+	8+
AGE									
NO. AT AGE	0	7	38	35	12	4	0	0	0
% AT AGE	0.00	7.29	39.58	36.46	12.50	4.17	0.00	0.00	0.00
LENGTH - MEAN(mm)	0.00	152.57	179.79	190.11	199.17	205.25	0.00	0.00	0.00
- STD. DEV.	0.00	9.02	9.17	9.29	11.24	2.75	0.00	0.00	0.00
WEIGHT - MEAN(gm)	0.00	54.14	85.82	100.86	113.00	131.00	0.00	0.00	0.00
- STD. DEV.	0.00	8.99	12.36	15.40	12.93	5.89	0.00	0.00	0.00
9+									
UNKNOWN									
TOTAL									

HJORT MATURITY STAGES:									
=====									
	1	2	3	4	5	6	7	8	UNKNOWN
MATURITY STAGE									
NO. AT STAGE	0	0	44	55	1	0	0	0	0
% AT STAGE	0.00	0.00	44.00	55.00	1.00	0.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):									
=====									
SEX RATIO:									
=== =====									
	IMMATURE	MATURE	SPENT	TOTAL					
NO.	50	0	0	50					
%	100.00	0.00	0.00	100.00					
% SAMPLE WEIGHT	2.22	0.00	0.00	2.22					
	MALE	FEMALE	IMMATURE	TOTAL					
NO.	49	50	1	100					
%	49.00	50.00	1.00	100.00					
MEAN WEIGHT	95.88	93.64	47.00	94.27					
% SAMP. WT.	49.84	49.67	0.50	100.00					

Table 10. (cont'd) Food and bait fishery sample summaries by section.

SECTION: 172 - NANOOSE BAY

SAMPLE NUMBERS: 20, 4, 18, 17,

SOURCE: FOOD FISHERY

GEAR: HERRING SEINE

DATE: NOV 26/98 - DEC 3/98

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	23	85	170	62	10	3	1	0	0	45	399
% AT AGE	0.00	6.50	24.01	48.02	17.51	2.82	0.85	0.28	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)	0.00	152.43	178.05	190.76	196.52	206.20	209.67	219.00	0.00	0.00	182.96	186.46
- STD. DEV.	0.00	11.55	12.32	9.06	10.08	5.75	11.37	0.00	0.00	0.00	21.26	16.27
WEIGHT - MEAN(gm)	0.00	46.17	78.04	98.09	107.13	124.50	136.67	140.00	0.00	0.00	91.27	92.52
- STD. DEV.	0.00	15.68	18.64	16.94	19.06	13.02	15.04	0.00	0.00	0.00	31.75	25.35

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	1	1	92	196	17	4	87	1	0
% AT STAGE	0.25	0.25	23.06	49.12	4.26	1.00	21.80	0.25	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:
NO.	154	15	28	197	NO.
%	78.17	7.61	14.21	100.00	%
% SAMPLE WEIGHT	5.52	1.86	0.00	7.38	MEAN WEIGHT
					% SAMP. WT.
					MALE
					201
					197
					1
					399
					50.38
					49.37
					0.25
					100.00
					88.49
					96.95
					29.00
					92.52
					51.74
					0.08
					100.00

Table 10. (cont'd) Food and bait fishery sample summaries by section.

SECTION: 173 - YELLOW POINT

SAMPLE NUMBERS: 285, 6, 15, 16, 7, 12, 10, 5, 14,

SOURCE: FOOD FISHERY

GEAR: HERRING SEINE

DATE: NOV 7/98 - JAN 11/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	2	122	229	345	115	26	5	0	0	0	55	899
% AT AGE	0.24	14.45	27.13	40.88	13.63	3.08	0.59	0.00	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)	103.50	141.11	180.09	192.38	198.75	202.00	204.60	0.00	0.00	0.00	166.29	181.66
- STD. DEV.	3.54	15.77	15.94	9.80	9.66	9.98	8.44	0.00	0.00	0.00	30.77	23.57
WEIGHT - MEAN(gm)	13.50	42.23	85.68	104.92	116.06	121.08	121.40	0.00	0.00	0.00	74.75	91.45
- STD. DEV.	0.71	14.20	21.12	16.71	18.62	17.62	15.44	0.00	0.00	0.00	37.55	30.53

SHORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	24	40	414	404	15	2	0	0	0
% AT STAGE	2.67	4.45	46.05	44.94	1.67	0.22	0.00	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:
NO.	443	4	0	447	NO.
%	99.11	0.89	0.00	100.00	%
% SAMPLE WEIGHT	5.19	0.09	0.00	5.28	MEAN WEIGHT
					% SAMP. WT.
					MALE
					FEMALE
					IMMATURE
					TOTAL
					401
					447
					49.72
					5.67
					100.00
					91.12
					29.45
					91.45
					53.73
					1.83
					100.00

Table 10. (cont'd) Food and bait fishery sample summaries by section.

SECTION: 182 - PLUMPER SOUND

SAMPLE NUMBERS: 13,

SOURCE: FOOD FISHERY

GEAR: HERRING SEINE

DATE: NOV 30/98

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	73	4	0	0	0	0	0	0	0	0	23	100
% AT AGE	94.81	5.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)	98.22	123.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	95.70	98.65
- STD. DEV.	6.62	11.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.79	9.44
WEIGHT - MEAN(gm)	12.59	26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.13	13.04
- STD. DEV.	3.12	10.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.55	5.26

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	98	2	0	0	0	0	0	0	0
% AT STAGE	98.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL
NO.	1	0	0	1
%	100.00	0.00	0.00	100.00
% SAMPLE WEIGHT	0.00	0.00	0.00	0.00

	MALE	FEMALE	IMMATURE	TOTAL
NO.	0	1	99	100
%	0.00	1.00	99.00	100.00
MEAN WEIGHT	0.00	41.00	12.76	13.04
% SAMP. WT.	0.00	3.14	96.86	100.00

SEX RATIO:
=== =====

Table 11. (cont'd) Seine roe fishery sample summaries by section

SECTION: 232 - MACOAH PASS
 SAMPLE NUMBERS: 111,250,269,114,199,115,109,163,205,117,
 116,

SOURCE: ROE FISHERY
 GEAR: HERRING SEINE
 DATE: MAR 10/99 - MAR 11/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	6	172	219	437	86	32	15	7	3	123	1100
% AT AGE	0.00	0.61	17.60	22.42	44.73	8.80	3.28	1.54	0.72	0.31	0.00	100.00
LENGTH - MEAN(mm)	0.00	166.17	182.79	191.15	201.80	204.67	215.03	224.20	227.00	228.67	197.16	197.14
- STD. DEV.	0.00	6.40	9.89	9.09	10.00	10.37	9.56	8.13	12.41	6.51	17.68	14.29
WEIGHT - MEAN(gm)	0.00	64.50	87.16	101.91	120.12	126.00	143.66	158.87	165.00	168.33	113.97	112.44
- STD. DEV.	0.00	5.68	15.51	17.33	18.66	21.03	24.22	20.44	33.49	23.71	31.59	25.81

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	1	0	0	0	784	312	2	1	0
% AT STAGE	0.09	0.00	0.00	0.00	71.27	28.36	0.18	0.09	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO: ===	MALE	FEMALE	IMMATURE	TOTAL
NO.	0	546	1	547	NO.	551	547	2	1100
%	0.00	99.82	0.18	100.00	%	50.09	49.73	0.18	100.00
% SAMPLE WEIGHT	0.00	29.06	0.00	29.06	MEAN WEIGHT	106.28	118.57	134.50	112.44
					% SAMP. WT.	47.35	52.44	0.22	100.00

Table 12. Gillnet roe fishery sample summaries by section

SECTION: 21 - JUAN PEREZ SOUND
SAMPLE NUMBERS: 221,259,218,
SOURCE: ROE FISHERY
GEAR: GILLNET
DATE: MAR 22/99 - MAR 23/99

SPECIMENS AT EACH AGE:		AGE										TOTAL
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	
NO. AT AGE		0	0	1	79	51	81	24	7	4	6	47
% AT AGE		0.00	0.00	0.40	31.23	20.16	32.02	9.49	2.77	1.58	2.37	0.00
LENGTH - MEAN (mm)		0.00	0.00	192.00	201.42	202.43	206.48	211.62	213.29	215.75	217.17	203.17
- STD. DEV.		0.00	0.00	0.00	8.98	8.35	7.64	7.78	9.32	9.43	7.83	7.03
WEIGHT - MEAN (gm)		0.00	0.00	116.00	126.00	127.18	132.64	146.37	148.00	148.50	154.17	130.23
- STD. DEV.		0.00	0.00	0.00	14.53	13.22	14.87	15.96	18.22	11.12	129.91	13.40

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	0	201	99	0	0	0
AT STAGE	0.00	0.00	0.00	0.00	67.00	33.00	0.00	0.00	0.00

ROE MATURITY (FEMALE) :

	IMMATURE		MATURE	SPENT TOTAL				MALE		FEMALE		IMMATURE		TOTAL
	NO.		0	181	0	181	NO.		119	181			0	300
%		0.00	100.00		0.00	100.00	%		39.67	60.33			0.00	100.00
% SAMPLE WEIGHT		0.00	30.62		0.00	30.62	% MEAN WEIGHT		127.45	134.38			0.00	131.63
%							% SAMP. WT.		38.41	61.59			0.00	100.00

Table 12. (cont'd) Gillnet roe fishery sample summaries by section

SECTION: 41 - AREA 4 WEST

SAMPLE NUMBERS: 236,

SOURCE: ROE FISHERY

GEAR: GILLNET

DATE: MAR 24/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	0	0	7	16	45	13	3	0	1	14	100
% AT AGE	0.00	0.00	0.00	8.14	18.60	53.49	15.12	3.49	0.00	1.16	0.00	100.00
LENGTH - MEAN(mm)	0.00	0.00	0.00	203.71	202.56	204.30	205.38	211.33	0.00	218.00	204.07	204.44
- STD. DEV.	0.00	0.00	0.00	8.52	9.02	7.67	8.36	10.50	0.00	0.00	5.68	7.90
WEIGHT - MEAN(gm)	0.00	0.00	0.00	120.71	118.94	123.11	121.08	140.33	0.00	147.00	124.00	122.89
- STD. DEV.	0.00	0.00	0.00	13.68	12.88	12.04	14.97	24.09	0.00	0.00	11.97	13.37

HJORT MATURITY STAGES:

	MATURITY STAGE							
	1	2	3	4	5	6	7	8
NO. AT STAGE	0	0	0	0	59	39	2	0
% AT STAGE	0.00	0.00	0.00	0.00	59.00	39.00	2.00	0.00

ROE MATURITY (FEMALE):

	SEX RATIO:			SEX RATIO:		
	IMMATURE	MATURE	TOTAL	MALE	FEMALE	IMMATURE
NO.	0	60	62	38	62	0
%	0.00	96.77	3.23	38.00	62.00	0.00
% SAMPLE WEIGHT	0.00	28.55	0.00	119.82	124.77	0.00
				37.05	62.95	0.00

Table 12. (cont'd) Gillnet roe fishery sample summaries by section

SECTION: 42 - AREA 4 NORTH
 SAMPLE NUMBERS: 212,222,241,214,239,233,219,
 SOURCE: ROE FISHERY
 GEAR: GILLNET
 DATE: MAR 20/99 - MAR 22/99

SPECIMENS AT EACH AGE:													
=====													
		AGE											
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	0	0	71	103	311	84	30	14	22	65	700
% AT AGE		0.00	0.00	0.00	11.18	16.22	48.98	13.23	4.72	2.20	3.46	0.00	100.00
LENGTH - MEAN(mm)		0.00	0.00	0.00	201.03	201.88	203.84	205.83	212.60	212.21	221.64	204.60	204.68
- STD. DEV.		0.00	0.00	0.00	8.44	7.90	7.98	7.53	7.72	10.38	7.99	8.81	8.99
WEIGHT - MEAN(gm)		0.00	0.00	0.00	121.01	122.03	125.00	127.80	139.77	140.14	147.77	126.55	126.29
- STD. DEV.		0.00	0.00	0.00	14.55	13.34	13.49	13.95	16.28	17.62	20.04	15.15	15.28

HJORT MATURITY STAGES:		MATURITY STAGE							
		1	2	3	4	5	6	7	8
NO. AT STAGE		0	1	0	0	430	255	11	3
% AT STAGE		0.00	0.14	0.00	0.00	61.43	36.43	1.57	0.43

ROE MATURITY (FEMALE):		SEX RATIO:		SEX RATIO:	
		===		=====	
		IMMATURE	MATURE	SPENT	TOTAL
NO.		0	324	4	328
%		0.00	98.78	1.22	100.00
% SAMPLE WEIGHT		0.00	27.74	0.00	27.74
		MALE		FEMALE	
		IMMATURE		TOTAL	
		372		328	
		53.14		46.86	
		124.62		128.18	
		52.44		47.56	
		0.00		0.00	
		100.00		100.00	

Table 12. (cont'd) Gillnet roe fishery sample summaries by section

SECTION: 67 - KITASU BAY
SAMPLE NUMBERS: 234, 246, 253, 251, 272, 261, 247, 240, 235, 248,

254,

SOURCE: ROE FISHERY

GEAR: GILLNET

DATE: MAR 19/99 - MAR 21/99

SPECIMENS AT EACH AGE:
=====

ECIMENS AT EACH AGE:												
=====												
	AGE											
	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	0	1	124	373	149	58	47	52	41	255	1100
% AT AGE	0.00	0.00	0.12	14.67	44.14	17.63	6.86	5.56	6.15	4.85	0.00	100.00
LENGTH - MEAN(mm)	0.00	0.00	195.00	198.46	202.35	206.30	209.93	213.94	218.48	220.71	205.30	205.47
- STD. DEV.	0.00	0.00	0.00	7.09	7.37	9.09	9.70	8.83	8.70	9.58	11.06	10.40
WEIGHT - MEAN(gm)	0.00	0.00	115.00	119.36	125.29	130.54	135.55	142.89	151.65	156.46	132.11	130.61
- STD. DEV.	0.00	0.00	0.00	11.60	13.60	16.29	18.45	17.62	21.28	21.70	18.80	18.50

HJORT MATURITY STAGES:
=====

	MATURITY STAGE							
	1	2	3	4	5	6	7	8
NO. AT STAGE	0	0	0	0	855	239	5	0
% AT STAGE	0.00	0.00	0.00	0.00	77.73	21.73	0.45	0.00

ROE MATURITY (FEMALE):
=====

	SEX RATIO:			SEX RATIO:		
	IMMATURE	MATURE	SPENT	MALE	FEMALE	TOTAL
NO.	0	703	1	396	704	0
%	0.00	99.86	0.14	36.00	64.00	0.00
% SAMPLE WEIGHT	0.00	29.39	0.00	125.79	133.32	0.00
				34.67	65.33	0.00

Table 12. (cont'd) Gillnet roe fishery sample summaries by section

SECTION: 77 - MILBANKE SOUND

SAMPLE NUMBERS: 220,

SOURCE: ROE FISHERY

GEAR: GILLNET

DATE: MAR 24/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	0	0	8	43	17	4	4	5	1	18	100
% AT AGE	0.00	0.00	0.00	9.76	52.44	20.73	4.88	4.88	6.10	1.22	0.00	100.00
LENGTH - MEAN(mm)	0.00	0.00	0.00	201.25	204.88	209.76	217.00	217.50	224.00	210.00	207.00	207.80
- STD. DEV.	0.00	0.00	0.00	8.65	7.11	9.95	8.04	7.85	5.20	0.00	10.64	9.77
WEIGHT - MEAN(gm)	0.00	0.00	0.00	124.62	133.56	138.88	143.00	159.25	160.20	150.00	134.94	136.90
- STD. DEV.	0.00	0.00	0.00	17.74	12.94	15.07	14.72	12.69	9.39	0.00	21.42	17.12

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	0	67	33	0	0	0
% AT STAGE	0.00	0.00	0.00	0.00	67.00	33.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:	MALE	FEMALE	IMMATURE	TOTAL
NO.	0	67	0	67	NO.	33	67	0	100
%	0.00	100.00	0.00	100.00	%	33.00	67.00	0.00	100.00
% SAMPLE WEIGHT	0.00	29.59	0.00	29.59	MEAN WEIGHT	132.88	138.88	0.00	136.90
					% SAMP. WT.	32.03	67.97	0.00	100.00

SECTION: 142 - BAYNES SOUND
SAMPLE NUMBERS: 210, 104, 171, 107, 110, 262, 112, 203, 113, 168,
105,

SOURCE: ROE FISHERY
GEAR: GILLNET
DATE: MAR 4/99 -

SPECIMENS AT EACH AGE:												
=====												
	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	0	18	245	307	176	56	28	5	1	233	1069
% AT AGE	0.00	0.00	2.15	29.31	36.72	21.05	6.70	3.35	0.60	0.12	0.00	100.00
LENGTH - MEAN(mm)	0.00	0.00	192.39	198.36	204.11	207.79	210.25	214.50	207.60	212.00	202.96	203.57
- STD. DEV.	0.00	0.00	10.46	7.60	8.00	7.31	8.71	6.53	10.67	0.00	9.45	9.16
WEIGHT - MEAN(gm)	0.00	0.00	112.61	125.57	130.75	135.94	138.04	142.71	133.00	142.00	128.07	130.24
- STD. DEV.	0.00	0.00	18.40	13.19	14.09	14.23	16.08	14.19	16.26	0.00	15.49	15.20

HJORT MATURITY STAGES: =====

[illegible]

ROE MATURITY (FEMALE) :

	NO.	%	IMMATURE	MATURE	SPENT	TOTAL	MALE	FEMALE	IMMATURE	TOTAL
NO.	1	633			8	642	426	642	1	1069
%	0.16	98.60			1.25	100.00	39.85	60.06	0.09	100.00
% SAMPLE WEIGHT	0.04	28.20			0.02	28.27	126.95	132.46	112.00	130.24
% SAMP. WT.							38.84	61.08	0.08	100.00

SEX RATIO: =====

Table 12. (cont'd) Gillnet roe fishery sample summaries by section
=====

SECTION: 243 - SYDNEY INLET
SAMPLE NUMBERS: 270,243,244,265,282,242,
SOURCE: ROE FISHERY
GEAR: GILLNET
DATE: APR 1/99

SPECIMENS AT EACH AGE:		AGE											
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	0	4	42	320	87	21	13	3	1	109	600
% AT AGE		0.00	0.00	0.81	8.55	65.17	17.72	4.28	2.65	0.61	0.20	0.00	100.00
LENGTH - MEAN(mm)		0.00	0.00	199.25	201.79	208.91	210.44	215.14	223.23	227.67	236.00	209.64	209.37
- STD. DEV.		0.00	0.00	3.69	6.40	6.86	6.51	8.79	6.56	4.04	0.00	7.34	7.79
WEIGHT - MEAN(gm)		0.00	0.00	120.50	123.33	133.27	136.49	138.81	143.23	156.00	156.00	135.03	133.84
- STD. DEV.		0.00	0.00	8.66	14.11	15.33	15.40	21.30	11.89	13.00	0.00	15.09	15.79

HJORT MATURITY STAGES:
=====

		MATURITY STAGE							
		1	2	3	4	5	6	7	8
NO. AT STAGE		0	0	0	0	374	195	31	0
% AT STAGE		0.00	0.00	0.00	0.00	62.33	32.50	5.17	0.00

ROE MATURITY (FEMALE):
=====

		SEX RATIO:			
		IMMATURE	MATURE	SPENT	TOTAL
NO.		0	374	14	388
%		0.00	96.39	3.61	100.00
% SAMPLE WEIGHT		0.00	29.49	0.00	29.49
		SEX RATIO:			
		MALE	FEMALE	IMMATURE	TOTAL
NO.		212	388	0	600
%		35.33	64.67	0.00	100.00
% SAMPLE WEIGHT		127.62	137.23	0.00	133.84
% SAMP. WT.		33.69	66.31	0.00	100.00

Table 12. (cont'd) Gillnet roe fishery sample summaries by section

SECTION: 253 - ESPERANZA INLET
 SAMPLE NUMBERS: 166,161,160,176,172,
 SOURCE: ROE FISHERY
 GEAR: GILLNET
 DATE: MAR 5/99

SPECIMENS AT EACH AGE:		AGE											
=====		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	0	4	64	207	72	23	18	9	0	71	468
	% AT AGE	0.00	0.00	1.01	16.12	52.14	18.14	5.79	4.53	2.27	0.00	0.00	100.00
LENGTH - MEAN(mm)		0.00	0.00	197.75	199.80	206.24	209.61	215.91	219.33	215.22	0.00	207.42	207.13
	- STD. DEV.	0.00	0.00	5.97	5.33	7.50	7.83	7.89	8.48	6.46	0.00	10.59	9.03
WEIGHT - MEAN(gm)		0.00	0.00	122.25	121.00	133.39	137.37	146.39	148.89	146.56	0.00	133.39	133.70
	- STD. DEV.	0.00	0.00	9.46	10.20	14.56	13.81	16.72	13.47	13.38	0.00	16.16	15.64

HJORT MATURITY STAGES:

MATURITY STAGE

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	1	338	126	3	0	0
% AT STAGE	0.00	0.00	0.00	0.21	72.22	26.92	0.64	0.00	0.00

ROE MATURITY (FEMALE):

SEX RATIO:

=== =====

		IMMATURE				MATURE				SEX RATIO:			
		TOTAL				SPENT				=====			
NO. %		1	264	1	266	0.38	99.25	0.38	100.00				
		0.08	29.68	0.00	29.77								
% SAMPLE WEIGHT													

		MALE				FEMALE				TOTAL			
		TOTAL				IMMATURE				TOTAL			
NO. %		202	266	0	468	43.16	56.84	0.00	100.00				
		129.42	136.95	0.00	133.70	41.78	58.22	0.00	100.00				
% SAMPLE WEIGHT													

Table 13. Spawn on kelp seine sample summaries by section
=====

SECTION: 24 - SELWYN INLET
SAMPLE NUMBERS: 286,287,
SOURCE: OTHER
GEAR: HERRING SEINE
DATE: APR 7/99

SPECIMENS AT EACH AGE:												
=====												
	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	27	7	113	23	18	2	1	0	0	9	200
% AT AGE	0.00	14.14	3.66	59.16	12.04	9.42	1.05	0.52	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)	0.00	159.85	183.29	187.03	190.52	202.11	200.00	234.00	0.00	0.00	178.67	184.98
- STD. DEV.	0.00	8.31	7.43	7.07	8.91	7.04	11.31	0.00	0.00	0.00	16.29	14.05
WEIGHT - MEAN(gm)	0.00	56.70	93.00	101.75	110.30	128.67	143.50	199.00	0.00	0.00	87.11	99.01
- STD. DEV.	0.00	10.33	15.33	13.70	16.03	17.12	36.06	0.00	0.00	0.00	26.29	25.17

HJORT MATURITY STAGES:
=====

	MATURITY STAGE							
	1	2	3	4	5	6	7	8
NO. AT STAGE	0	0	0	1	161	37	1	0
% AT STAGE	0.00	0.00	0.00	0.50	80.50	18.50	0.50	0.00

ROE MATURITY (FEMALE):
=====

	SEX RATIO:				SEX RATIO:			
	=====				=====			
	IMMATURE	MATURE	SPENT	TOTAL	MALE	FEMALE	IMMATURE	TOTAL
NO.	1	90	1	92	108	92	0	200
%	1.09	97.83	1.09	100.00	54.00	46.00	0.00	100.00
% SAMPLE WEIGHT	0.03	27.85	0.00	27.88	91.33	108.03	0.00	99.01
					49.81	50.19	0.00	100.00

Table 13. (cont'd) Spawn on kelp seine sample summaries by section

SECTION: 25 - SKINCUTTLE INLET
 SAMPLE NUMBERS: 190,185,
 SOURCE: OTHER
 GEAR: HERRING SEINE
 DATE: MAR 6/99 - MAR 14/99

SPECIMENS AT EACH AGE:		AGE												
=====	==	=====	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE			0	7	4	112	46	13	4	0	0	1	13	200
% AT AGE			0.00	3.74	2.14	59.89	24.60	6.95	2.14	0.00	0.00	0.53	0.00	100.00
LENGTH - MEAN(mm)			0.00	157.00	182.00	190.28	191.80	196.23	209.25	0.00	0.00	218.00	193.46	190.41
- STD. DEV.			0.00	9.15	3.16	8.60	9.08	9.85	2.99	0.00	0.00	0.00	11.69	11.48
WEIGHT - MEAN(gm)			0.00	58.71	91.25	105.84	108.89	118.00	134.50	0.00	0.00	189.00	114.69	106.96
- STD. DEV.			0.00	10.37	5.44	17.65	15.36	22.12	13.67	0.00	0.00	0.00	24.96	21.21

HORT MATURITY STAGES:

	MATURITY STAGE							
	1	2	3	4	5	6	7	8
NO. AT STAGE	0	0	0	8	122	65	5	0
% AT STAGE	0.00	0.00	0.00	4.00	61.00	32.50	2.50	0.00

ROE MATURITY (FEMALE):

SEX RATIO:			
=====			
INMATURE	MATURE	SPENT	TOTAL
NO.	3	103	0
%	2.83	97.17	0.00
% SAMPLE WEIGHT	0.88	28.11	0.00
=====			
MALE	94	106	0
FEMALE	47.00	53.00	0.00
MEAN WEIGHT	98.82	114.17	0.00
% SAMP. WT.	43.42	56.58	0.00

Table 13. (cont'd) Spawn on kelp seine sample summaries by section

SECTION: 74 - THOMPSON BAY

SAMPLE NUMBERS: 96,

SOURCE: OTHER

GEAR: HERRING SEINE

DATE: MAR 21/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	4	7	43	29	4	1	1	3	3	5	100
% AT AGE	0.00	4.21	7.37	45.26	30.53	4.21	1.05	1.05	3.16	3.16	0.00	100.00
LENGTH - MEAN(mm)	0.00	169.00	168.00	185.30	193.52	195.00	202.00	214.00	217.67	224.33	186.80	188.88
- STD. DEV.	0.00	20.31	2.94	10.90	11.03	13.44	0.00	0.00	9.45	5.13	11.30	15.57
WEIGHT - MEAN(gm)	0.00	69.00	63.57	90.77	104.83	109.75	116.00	138.00	143.00	164.67	91.60	97.38
- STD. DEV.	0.00	32.32	7.09	18.28	19.97	30.20	0.00	0.00	30.64	10.02	21.23	27.08

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	0	73	27	0	0	0
% AT STAGE	0.00	0.00	0.00	0.00	73.00	27.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:	MALE	FEMALE	IMMATURE	TOTAL
NO.	0	60	0	60	NO.	40	60	0	100
%	0.00	100.00	0.00	100.00	%	40.00	60.00	0.00	100.00
% SAMPLE WEIGHT	0.00	26.73	0.00	26.73	MEAN WEIGHT	90.65	101.87	0.00	97.38
					% SAMP. WT.	37.24	62.76	0.00	100.00

Table 13. (cont'd) Spawn on kelp seine sample summaries by section

SECTION: 252 - NOOTKA SOUND

SAMPLE NUMBERS: 139,

SOURCE: OTHER

GEAR: HERRING SEINE

DATE: MAR 18/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	2	23	21	33	5	2	4	1	1	8	100
% AT AGE	0.00	2.17	25.00	22.83	35.87	5.43	2.17	4.35	1.09	1.09	0.00	100.00
LENGTH - MEAN(mm)	0.00	167.00	182.70	192.38	201.76	206.00	209.50	222.75	232.00	221.00	193.50	195.75
- STD. DEV.	0.00	2.83	11.93	9.44	9.95	12.65	3.54	6.34	0.00	0.00	28.54	16.63
WEIGHT - MEAN(gm)	0.00	59.50	86.61	99.76	118.82	124.80	133.00	151.75	146.00	145.00	103.62	107.44
- STD. DEV.	0.00	4.95	19.56	15.09	21.79	23.72	19.80	11.70	0.00	0.00	39.27	27.67

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	0	62	37	1	0	0
% AT STAGE	0.00	0.00	0.00	0.00	62.00	37.00	1.00	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO: === =====	MALE	FEMALE	IMMATURE	TOTAL
NO.	0	46	0	46	NO.	54	46	0	100
%	0.00	100.00	0.00	100.00	%	54.00	46.00	0.00	100.00
% SAMPLE WEIGHT	0.00	28.60	0.00	28.60	MEAN WEIGHT	99.31	116.98	0.00	107.44
					% SAMP. WT.	49.92	50.08	0.00	100.00

Table 13. (cont'd) Spawn on kelp seine sample summaries by section

SECTION: 253 - ESPERANZA INLET

SAMPLE NUMBERS: 173,

SOURCE: OTHER

GEAR: HERRING SEINE

DATE: MAR 4/99

SPECIMENS AT EACH AGE: _____

SPECIMENS AT EACH AGE:		AGE											
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	1	15	38	34	3	0	2	0	0	7	100
% AT AGE		0.00	1.08	16.13	40.86	36.56	3.23	0.00	2.15	0.00	0.00	0.00	100.00
LENGTH - MEAN (mm)		0.00	160.00	182.40	190.18	197.41	210.00	0.00	218.00	0.00	0.00	199.86	193.00
- STD. DEV.		0.00	0.00	7.81	6.49	8.69	4.58	0.00	1.41	0.00	0.00	10.79	10.93
WEIGHT - MEAN (gm)		0.00	56.00	86.27	101.37	114.15	130.33	0.00	150.00	0.00	0.00	120.57	106.18
- STD. DEV.		0.00	0.00	11.68	14.13	21.51	25.48	0.00	8.49	0.00	0.00	19.89	21.76

HJORT MATURITY STAGES: =====

[illegible]

ROE MATURITY (FEMALE) :

AGE MATURITY (FEMALE) :				SEX RATIO :			
=====				=====			
	IMMATURE	MATURE	TOTAL		MALE	FEMALE	TOTAL
NO.	0	50	50	NO.	50	50	100
%	0.00	100.00	100.00	%	50.00	50.00	100.00
% SAMPLE WEIGHT	0.00	28.43	28.43	MEAN WEIGHT	99.52	112.84	106.18
				% SAMP. WT.	46.86	53.14	100.00

Table 14. Test fishing sample summaries by section
=====

SECTION: 2 - PORT LOUIS
SAMPLE NUMBERS: 280,211,274,
SOURCE: TEST FISHERY
GEAR: HERRING SEINE
DATE: MAR 17/99 - MAR 21/99

SPECIMENS AT EACH AGE:	AGE									
	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+
NO. AT AGE	0	52	90	69	47	22	8	1	0	0
% AT AGE	0.00	17.99	31.14	23.88	16.26	7.61	2.77	0.35	0.00	0.00
LENGTH - MEAN(mm)	0.00	174.87	192.24	198.83	213.06	218.41	220.87	232.00	0.00	0.00
- STD. DEV.	0.00	7.30	10.39	11.69	11.99	12.35	8.08	0.00	0.00	0.00
WEIGHT - MEAN(gm)	0.00	75.40	107.60	120.16	151.04	164.36	169.50	195.00	0.00	0.00
- STD. DEV.	0.00	12.12	19.81	26.75	28.26	31.25	21.99	0.00	0.00	0.00
UNKNOWN										
TOTAL										

HJORT MATURITY STAGES:
=====

	MATURITY STAGE							
	1	2	3	4	5	6	7	8
NO. AT STAGE	0	0	0	2	221	77	0	0
% AT STAGE	0.00	0.00	0.00	0.67	73.67	25.67	0.00	0.00
UNKNOWN								

ROE MATURITY (FEMALE):
=====

	SEX RATIO:				SEX RATIO:			
	=====				=====			
NO.	2	173	0	175	NO.	125	175	0
%	1.14	98.86	0.00	100.00	%	41.67	58.33	0.00
% SAMPLE WEIGHT	0.11	29.72	0.00	29.84	MEAN WEIGHT	104.79	126.94	0.00
					% SAMP. WT.	37.09	62.91	0.00
UNKNOWN					UNKNOWN			
TOTAL					TOTAL			

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 3 - RENNELL SOUND

SAMPLE NUMBERS: 281,278,277,279,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: MAR 19/99 - MAR 24/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	61	150	100	35	30	3	3	2	0	16	400
% AT AGE	0.00	15.89	39.06	26.04	9.11	7.81	0.78	0.78	0.52	0.00	0.00	100.00
LENGTH - MEAN(mm)	0.00	171.00	191.90	197.59	210.54	223.20	211.00	198.67	233.50	0.00	182.81	194.15
- STD. DEV.	0.00	7.98	11.34	11.03	11.84	7.64	19.31	21.73	14.85	0.00	16.57	17.55
WEIGHT - MEAN(gm)	0.00	68.64	106.93	117.58	144.89	171.97	151.33	113.67	187.00	0.00	92.50	112.16
- STD. DEV.	0.00	11.45	22.98	24.41	28.51	21.98	43.25	38.81	19.80	0.00	30.37	35.31

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	0	323	76	1	0	0
% AT STAGE	0.00	0.00	0.00	0.00	80.75	19.00	0.25	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO: ===	MALE	FEMALE	IMMATURE	TOTAL
NO.	0	193	0	193	NO.	207	193	0	400
%	0.00	100.00	0.00	100.00	%	51.75	48.25	0.00	100.00
% SAMPLE WEIGHT	0.00	28.66	0.00	28.66	MEAN WEIGHT	103.45	121.50	0.00	112.16
					% SAMP. WT.	47.73	52.27	0.00	100.00

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 5 - ENGLEFIELD BAY
SAMPLE NUMBERS: 276,
SOURCE: TEST FISHERY
GEAR: HERRING SEINE
DATE: MAR 24/99

SPECIMENS AT EACH AGE: =====

SPECIMENS AT EACH AGE:												
=====												
AGE												
	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	7	9	47	28	4	1	0	0	0	4	100
% AT AGE	0.00	7.29	9.38	48.96	29.17	4.17	1.04	0.00	0.00	0.00	0.00	100.00
LENGTH - MEAN (mm)	0.00	165.86	188.56	203.64	209.18	216.50	229.00	0.00	0.00	0.00	191.00	201.45
- STD. DEV.	0.00	4.53	8.89	8.75	8.59	12.71	0.00	0.00	0.00	0.00	24.98	15.24
WEIGHT - MEAN (gm)	0.00	63.57	98.44	129.26	145.04	161.25	180.00	0.00	0.00	0.00	105.25	127.13
- STD. DEV.	0.00	5.55	15.53	19.38	22.34	25.53	0.00	0.00	0.00	0.00	39.01	30.76

[illegible][illegible]

ROE MATURITY (FEMALE) : =====

=====		IMMATURE		MATURE		SPENT		TOTAL		MALE		FEMALE		IMMATURE		TOTAL	
NO.		2	49		51						49	51	0			100	
%		3.92	96.08	0.00	100.00						49.00	51.00	0.00			100.00	
% SAMPLE WEIGHT		0.40	27.81	0.00	28.21						120.55	133.45	0.00			127.13	
% SAMPLE WT.											46.46	53.54	0.00			100.00	

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 21 - JUAN PEREZ SOUND

SAMPLE NUMBERS: 182,196,186,191,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: MAR 6/99 - MAR 28/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	15	9	247	61	32	11	1	1	1	22	400
% AT AGE	0.00	3.97	2.38	65.34	16.14	8.47	2.91	0.26	0.26	0.26	0.00	100.00
LENGTH - MEAN(mm)	0.00	158.80	182.67	191.39	193.70	202.69	204.00	216.00	218.00	221.00	185.23	191.44
- STD. DEV.	0.00	11.17	12.10	8.37	10.04	7.75	9.39	0.00	0.00	0.00	11.84	12.03
WEIGHT - MEAN(gm)	0.00	55.60	87.56	104.28	110.70	125.19	123.73	143.00	164.00	182.00	98.82	105.40
- STD. DEV.	0.00	10.93	18.04	15.74	21.00	21.76	21.34	0.00	0.00	0.00	20.33	21.80

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	4	359	35	1	1	0
% AT STAGE	0.00	0.00	0.00	1.00	89.75	8.75	0.25	0.25	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL
NO.	2	215	1	218
%	0.92	98.62	0.46	100.00
% SAMPLE WEIGHT	0.15	29.15	0.12	29.41

	MALE	FEMALE	IMMATURE	TOTAL
NO.	182	218	0	400
%	45.50	54.50	0.00	100.00
% MEAN WEIGHT	96.79	112.60	0.00	105.40
% SAMP. WT.	41.78	58.22	0.00	100.00

SEX RATIO:
=== =====

Table 14. (cont'd) Test fishing sample summaries by section
=====

SECTION: 25 - SKINCUTTLE INLET
SAMPLE NUMBERS: 192,179,
SOURCE: TEST FISHERY
GEAR: HERRING SEINE
DATE: MAR 3/99 - MAR 21/99

SPECIMENS AT EACH AGE:		AGE											
=====		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	2	5	122	37	17	4	2	2	4	5	200
% AT AGE		0.00	1.03	2.56	62.56	18.97	8.72	2.05	1.03	1.03	2.05	0.00	100.00
LENGTH - MEAN(mm)		0.00	159.00	184.40	191.80	193.08	207.71	207.75	216.50	214.50	222.00	182.40	194.04
- STD. DEV.		0.00	1.41	8.50	7.26	7.80	8.67	7.14	13.44	0.71	0.82	13.96	11.05
WEIGHT - MEAN(gm)		0.00	58.00	92.20	103.41	109.95	139.59	129.00	164.00	147.50	164.25	83.60	109.24
- STD. DEV.		0.00	0.00	22.07	16.32	16.37	21.45	17.01	11.31	16.26	18.63	19.89	23.24

JOINT MATURITY STAGES:
=====

MATURITY STAGE

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	2	170	27	1	0	0
% AT STAGE	0.00	0.00	0.00	1.00	85.00	13.50	0.50	0.00	0.00

ROE MATURITY (FEMALE):
=====

SEX RATIO:
=== =====

		IMMATURE		MATURE		SPENT		TOTAL	
NO.	%	0	109	0	109	0	0	109	200
		0.00	100.00	0.00	100.00	0.00	0.00	100.00	100.00
% SAMPLE WEIGHT		0.00	29.98	0.00	29.98	0.00	0.00	29.98	109.24
									100.00

		MALE		FEMALE		IMMATURE		TOTAL	
NO.	%	91	109	45.50	54.50	0.00	0.00	100.00	200
		45.50	54.50	101.27	115.89	0.00	0.00	109.24	109.24
% SAMP. WT.		42.18	57.82	0.00	0.00	0.00	0.00	100.00	100.00

Table 14. (cont'd) Test fishing sample summaries by section
=====

SECTION: 52 - KITKATLA INLET
SAMPLE NUMBERS: 154,284,159,158,156,151,155,142,152,
SOURCE: TEST FISHERY
GEAR: HERRING SEINE
DATE: MAR 18/99 - MAR 26/99

SPECIMENS AT EACH AGE:												
=====												
AGE												
	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	8	29	438	177	152	25	4	10	13	44	900
% AT AGE	0.00	0.93	3.39	51.17	20.68	17.76	2.92	0.47	1.17	1.52	0.00	100.00
LENGTH - MEAN(mm)	0.00	167.00	176.93	186.80	191.74	198.49	199.48	207.00	209.40	217.15	191.00	190.59
- STD. DEV.	0.00	11.08	8.15	9.01	9.18	9.10	7.97	8.04	6.45	16.14	13.48	11.57
WEIGHT - MEAN(gm)	0.00	62.75	82.41	98.44	107.56	119.75	124.32	131.50	145.40	149.62	107.86	105.59
- STD. DEV.	0.00	17.87	14.44	16.74	16.57	17.58	17.68	10.66	15.83	32.16	21.29	21.20

HJORT MATURITY STAGES:
=====

MATURITY STAGE									
	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	14	642	242	2	0	0
% AT STAGE	0.00	0.00	0.00	1.56	71.33	26.89	0.22	0.00	0.00

ROE MATURITY (FEMALE):
=====

=====				
SEX RATIO:				
=====				
	IMMATURE	MATURE	SPENT	TOTAL
NO.	9	411	1	421
%	2.14	97.62	0.24	100.00
% SAMPLE WEIGHT	0.46	28.47	0.00	28.93
=====				
	MALE	FEMALE	IMMATURE	TOTAL
NO.	479	421	0	900
%	53.22	46.78	0.00	100.00
MEAN WEIGHT	100.45	111.43	0.00	105.59
% SAMP. WT.	50.63	49.37	0.00	100.00

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 72 - POWELL ANCHORAGE
 SAMPLE NUMBERS: 132,122, 82,120,208, 76,127,133, 71,
 SOURCE: TEST FISHERY
 GEAR: HERRING SEINE
 DATE: MAR 11/99 - MAR 18/99

SPECIMENS AT EACH AGE:									
=====									
	0+	1+	2+	3+	4+	5+	6+	7+	8+
AGE									
NO. AT AGE	0	3	82	370	280	52	12	15	14
% AT AGE	0.00	0.36	9.81	44.26	33.49	6.22	1.44	1.79	1.67
LENGTH - MEAN(mm)	0.00	158.67	167.50	182.82	191.57	195.56	199.92	217.20	218.29
- STD. DEV.	0.00	8.08	12.95	12.67	11.36	11.84	8.45	9.62	13.96
WEIGHT - MEAN(gm)	0.00	51.00	68.01	91.58	107.95	116.38	119.75	153.40	157.50
- STD. DEV.	0.00	2.65	16.32	19.60	20.37	20.87	16.70	22.14	40.68
UNKNOWN								0.96	0.00
TOTAL								8	45
									881
									100.00
									186.55
									16.17
									92.64
									35.79
									27.79

HJORT MATURITY STAGES:									
=====									
	1	2	3	4	5	6	7	8	UNKNOWN
MATURITY STAGE									
NO. AT STAGE	1	1	0	10	634	217	16	2	0
% AT STAGE	0.11	0.11	0.00	1.14	71.96	24.63	1.82	0.23	0.00

ROE MATURITY (FEMALE) :					SEX RATIO:				
=====					=====				
	IMMATURE	MATURE	SPENT	TOTAL		MALE	FEMALE	IMMATURE	TOTAL
=====					=====				
NO.	7	467	7	481	NO.]	395	481	5	881
%	1.46	97.09	1.46	100.00	%	44.84	54.60	0.57	100.00
% SAMPLE WEIGHT	0.24	27.52	0.00	27.76	% MEAN WEIGHT	92.71	104.82	59.60	99.14
					% SAMP. WT.	41.93	57.73	0.34	100.00

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 74 - THOMPSON BAY
 SAMPLE NUMBERS: 124,121,134, 72,136,129,128,131,200,126,
 118,
 SOURCE: TEST FISHERY
 GEAR: HERRING SEINE
 DATE: MAR 7/99 - MAR 22/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	15	103	461	354	59	13	17	14	16	34	1086
% AT AGE	0.00	1.43	9.79	43.82	33.65	5.61	1.24	1.62	1.33	1.52	0.00	100.00
LENGTH - MEAN(mm)	0.00	156.27	170.66	186.08	192.90	197.42	211.08	215.24	221.57	226.62	185.59	188.84
- STD. DEV.	0.00	14.05	13.09	10.81	10.70	13.83	9.10	10.23	7.72	8.56	18.83	15.54
WEIGHT - MEAN(gm)	0.00	53.93	72.01	94.80	108.16	117.51	143.15	149.41	161.79	165.37	95.12	101.01
- STD. DEV.	0.00	16.46	19.56	18.19	19.69	26.61	21.58	23.87	18.70	20.40	29.37	26.83

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	1	5	2	2	827	246	2	0	1
% AT STAGE	0.09	0.46	0.18	0.18	76.15	22.65	0.18	0.00	0.09

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL		MALE	FEMALE	IMMATURE	TOTAL
NO.	6	558	1	565	NO.	518	565	3	1086
%	1.06	98.76	0.18	100.00	%	47.70	52.03	0.28	100.00
% SAMPLE WEIGHT	0.11	27.31	0.00	27.42	% MEAN WEIGHT	96.05	105.92	32.33	101.01
					% SAMP. WT.	45.36	54.56	0.09	100.00

SEX RATIO:
 == =====

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 77 - MILBANKE SOUND
 SAMPLE NUMBERS: 87, 85, 84, 92, 81,
 SOURCE: TEST FISHERY
 GEAR: HERRING SEINE
 DATE: MAR 12/99 - MAR 20/99

SPECIMENS AT EACH AGE:									
=====									
	0+	1+	2+	3+	4+	5+	6+	7+	8+
AGE									
NO. AT AGE	0	4	36	251	146	19	6	4	6
% AT AGE	0.00	0.84	7.59	52.95	30.80	4.01	1.27	0.84	1.27
LENGTH - MEAN(mm)	0.00	155.50	171.44	182.08	189.45	196.79	195.83	212.75	207.33
- STD. DEV.	0.00	14.20	9.36	10.73	9.92	10.96	8.59	15.52	11.76
WEIGHT - MEAN(gm)	0.00	52.50	68.75	87.71	100.08	113.63	96.83	141.75	115.83
- STD. DEV.	0.00	13.03	11.15	17.61	19.81	24.94	8.95	30.09	23.40
9+									
UNKNOWN									
TOTAL									

HJORT MATURITY STAGES:

=====									
	1	2	3	4	5	6	7	8	UNKNOWN
MATURITY STAGE									
NO. AT STAGE	0	0	1	44	288	166	1	0	0
% AT STAGE	0.00	0.00	0.20	8.80	57.60	33.20	0.20	0.00	0.00

ROE MATURITY (FEMALE):

=====									
	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:				
=====					=====				
NO.	26	223	0	249	NO.	251	249	0	500
%	10.44	89.56	0.00	100.00	%	50.20	49.80	0.00	100.00
% SAMPLE WEIGHT	1.89	24.28	0.00	26.17	MEAN WEIGHT	86.63	96.75	0.00	91.67
					% SAMP. WT.	47.44	52.56	0.00	100.00

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 78 - DON PENINSULA

SAMPLE NUMBERS: 119,130,125, 95,137, 79,135,123, 75,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: MAR 7/99 - MAR 23/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	4	92	349	263	53	24	30	26	11	48	900
% AT AGE	0.00	0.47	10.80	40.96	30.87	6.22	2.82	3.52	3.05	1.29	0.00	100.00
LENGTH - MEAN(mm)	0.00	148.25	164.40	179.32	190.64	192.74	203.00	212.70	216.92	212.09	173.73	184.69
- STD. DEV.	0.00	12.97	13.65	15.43	12.87	11.91	21.09	13.71	14.01	17.34	22.24	19.35
WEIGHT - MEAN(gm)	0.00	45.75	64.41	87.07	105.13	108.55	130.08	143.23	159.00	139.55	83.98	96.68
- STD. DEV.	0.00	11.30	16.51	22.04	22.34	19.75	39.06	25.86	32.67	33.31	33.29	31.20

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	1	0	13	614	262	9	1	0
% AT STAGE	0.00	0.11	0.00	1.44	68.22	29.11	1.00	0.11	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:	MALE	FEMALE	IMMATURE	TOTAL
NO.	7	446	3	456	NO.	443	456	1	900
%	1.54	97.81	0.66	100.00	%	49.22	50.67	0.11	100.00
% SAMPLE WEIGHT	0.31	27.27	0.00	27.58	MEAN WEIGHT	91.67	101.66	47.00	96.68
					% SAMP. WT.	46.67	53.28	0.05	100.00

[illegible]

SECTION: 142 - BAYNES SOUND

SAMPLE NUMBERS: 37, 51, 44, 30, 53, 21, 38, 47, 54, 45,
31, 39, 12, 98, 55, 32, 40, 24, 41, 13,
33, 18,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: FEB 26/99 - MAR 10/99

SPECIMENS AT EACH AGE: =====

AGE

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	109	492	880	336	119	30	15	4	1	176	2162
% AT AGE	0.00	5.49	24.77	44.31	16.92	5.99	1.51	0.76	0.20	0.05	0.00	100.00
LENGTH - MEAN(mm)	0.00	151.65	175.30	187.45	197.60	205.11	210.90	218.27	218.25	211.00	177.70	185.24
- STD. DEV.	0.00	10.28	14.37	11.02	10.75	8.38	10.60	6.86	12.42	0.00	22.06	17.75
WEIGHT - MEAN(gm)	0.00	48.28	80.55	99.95	115.80	126.13	134.70	147.67	147.75	142.00	85.99	96.62
- STD. DEV.	0.00	12.12	20.32	19.07	19.73	17.22	18.63	20.67	11.27	9.00	33.49	27.64

HJORT MATURITY STAGES: # # # # #

Maturity Stage

[illegible]

ROE MATURITY (FEMALE): =====

SEX RATIO: =====

	IMMATURE	MATURE	SPENT	TOTAL
1970	100	100	100	300
1971	100	100	100	300
1972	100	100	100	300
1973	100	100	100	300
1974	100	100	100	300
1975	100	100	100	300
1976	100	100	100	300
1977	100	100	100	300
1978	100	100	100	300
1979	100	100	100	300
1980	100	100	100	300
1981	100	100	100	300
1982	100	100	100	300
1983	100	100	100	300
1984	100	100	100	300
1985	100	100	100	300
1986	100	100	100	300
1987	100	100	100	300
1988	100	100	100	300
1989	100	100	100	300
1990	100	100	100	300
1991	100	100	100	300
1992	100	100	100	300
1993	100	100	100	300
1994	100	100	100	300
1995	100	100	100	300
1996	100	100	100	300
1997	100	100	100	300
1998	100	100	100	300
1999	100	100	100	300
2000	100	100	100	300
2001	100	100	100	300
2002	100	100	100	300
2003	100	100	100	300
2004	100	100	100	300
2005	100	100	100	300
2006	100	100	100	300
2007	100	100	100	300
2008	100	100	100	300
2009	100	100	100	300
2010	100	100	100	300
2011	100	100	100	300
2012	100	100	100	300
2013	100	100	100	300
2014	100	100	100	300
2015	100	100	100	300
2016	100	100	100	300
2017	100	100	100	300
2018	100	100	100	300
2019	100	100	100	300
2020	100	100	100	300
2021	100	100	100	300
2022	100	100	100	300
2023	100	100	100	300
2024	100	100	100	300
2025	100	100	100	300
2026	100	100	100	300
2027	100	100	100	300
2028	100	100	100	300
2029	100	100	100	300
2030	100	100	100	300
2031	100	100	100	300
2032	100	100	100	300
2033	100	100	100	300
2034	100	100	100	300
2035	100	100	100	300
2036	100	100	100	300
2037	100	100	100	300
2038	100	100	100	300
2039	100	100	100	300
2040	100	100	100	300
2041	100	100	100	300
2042	100	100	100	300
2043	100	100	100	300
2044	100	100	100	300
2045	100	100	100	300
2046				

	MALE		FEMALE		IMMATURE		TOTAL
NO.	1025	1113	24	2162			
g	47.41	51.48	1.11	100.00			
MEAN WEIGHT	92.40	101.81	36.42	96.62			
g	54.34	54.25	0.42	100.00			
SAMP. WT.							

NO.	142	957	14	1113	NO.	1025	1113	24	2162
%	12.76	85.98	1.26	100.00	%	47.41	51.48	1.11	100.00
% SAMPLE WEIGHT	2.07	24.52	0.02	26.62	MEAN WEIGHT	92.40	101.81	36.42	96.62
					% SAMP. WT.	45.34	54.25	0.42	100.00

Table 14. (cont'd) Test fishing sample summaries by section
=====

SECTION: 172 - NANOOSE BAY

SAMPLE NUMBERS: 35, 14,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: FEB 25/99 - MAR 1/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	21	55	72	31	13	2	0	0	0	6	200
% AT AGE	0.00	10.82	28.35	37.11	15.98	6.70	1.03	0.00	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)	0.00	158.62	176.55	187.76	197.42	202.69	211.50	0.00	0.00	0.00	196.00	184.57
- STD. DEV.	0.00	9.77	14.48	11.64	12.05	8.46	0.71	0.00	0.00	0.00	13.61	17.22
WEIGHT - MEAN(gm)	0.00	52.43	73.67	89.78	104.16	119.92	128.00	0.00	0.00	0.00	106.00	86.49
- STD. DEV.	0.00	9.18	17.25	17.51	18.01	18.85	2.83	0.00	0.00	0.00	21.06	24.54

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	1	61	136	1	1	0	0
% AT STAGE	0.00	0.00	0.50	30.50	68.00	0.50	0.50	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL		MALE	FEMALE	IMMATURE	TOTAL
NO.	18	60	0	78	NO.	122	78	0	200
%	23.08	76.92	0.00	100.00	%	61.00	39.00	0.00	100.00
% SAMPLE WEIGHT	4.07	18.65	0.00	22.72	MEAN WEIGHT	83.62	90.96	0.00	86.49
					% SAMP. WT.	58.98	41.02	0.00	100.00

SEX RATIO:
=====

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 181 - SWANSON CHANNEL

SAMPLE NUMBERS: 17,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: FEB 27/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	30	49	9	1	0	0	0	0	0	11	100
% AT AGE	0.00	33.71	55.06	10.11	1.12	0.00	0.00	0.00	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)	0.00	146.63	146.45	165.56	195.00	0.00	0.00	0.00	0.00	0.00	148.73	148.96
- STD. DEV.	0.00	10.33	11.82	19.15	0.00	0.00	0.00	0.00	0.00	0.00	13.62	14.09
WEIGHT - MEAN(gm)	0.00	39.37	38.00	62.78	102.00	0.00	0.00	0.00	0.00	0.00	40.00	41.50
- STD. DEV.	0.00	8.43	11.80	23.79	0.00	0.00	0.00	0.00	0.00	0.00	11.86	15.30

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	22	18	2	36	22	0	0	0	0
% AT STAGE	22.00	18.00	2.00	36.00	22.00	0.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL		SEX RATIO:		MALE	FEMALE	IMMATURE	TOTAL
NO.	26	13	0	39	NO.	===	=====	28	39	33	100
%	66.67	33.33	0.00	100.00	%			28.00	39.00	33.00	100.00
% SAMPLE WEIGHT	5.90	6.88	0.00	12.77	MEAN WEIGHT			45.57	46.97	31.58	41.50
					% SAMP. WT.			30.75	44.14	25.11	100.00

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 233 - IMPERIAL EAGLE CH.

SAMPLE NUMBERS: 266,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: MAR 4/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	0	2	1	1	0	1	0	0	0	0	5
% AT AGE	0.00	0.00	40.00	20.00	20.00	0.00	20.00	0.00	0.00	0.00	0.00	100.00
LENGTH - MEAN(mm)	0.00	0.00	182.00	184.00	217.00	0.00	219.00	0.00	0.00	0.00	0.00	196.80
- STD. DEV.	0.00	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.40
WEIGHT - MEAN(gm)	0.00	0.00	87.50	103.00	137.00	0.00	139.00	0.00	0.00	0.00	0.00	110.80
- STD. DEV.	0.00	0.00	3.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.69

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	0	3	2	0	0	0
% AT STAGE	0.00	0.00	0.00	0.00	60.00	40.00	0.00	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:	MALE	FEMALE	IMMATURE	TOTAL
NO.	0	2	0	2	NO.	3	2	0	5
%	0.00	100.00	0.00	100.00	%	60.00	40.00	0.00	100.00
% SAMPLE WEIGHT	0.00	25.99	0.00	25.99	MEAN WEIGHT	109.00	113.50	0.00	110.80
					% SAMP. WT.	59.03	40.97	0.00	100.00

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 252 - NOOTKA SOUND

SAMPLE NUMBERS: 180,167,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: FEB 28/99 - MAR 7/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	3	30	51	76	16	8	6	1	1	8	200
% AT AGE	0.00	1.56	15.63	26.56	39.58	8.33	4.17	3.13	0.52	0.52	0.00	100.00
LENGTH - MEAN(mm)	0.00	164.33	181.00	195.16	203.66	203.94	209.12	221.33	214.00	244.00	194.00	198.14
- STD. DEV.	0.00	11.59	10.25	8.37	8.56	8.02	11.78	4.23	0.00	0.00	13.56	13.79
WEIGHT - MEAN(gm)	0.00	66.33	85.47	110.08	126.54	126.12	140.50	158.50	160.00	175.00	104.62	116.29
- STD. DEV.	0.00	8.33	15.32	16.79	17.82	16.77	23.57	14.15	0.00	0.00	28.87	25.47

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	0	137	62	1	0	0
% AT STAGE	0.00	0.00	0.00	0.00	68.50	31.00	0.50	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:	MALE	FEMALE	IMMATURE	TOTAL
NO.	0	106	0	106	NO.	94	106	0	200
%	0.00	100.00	0.00	100.00	%	47.00	53.00	0.00	100.00
% SAMPLE WEIGHT	0.00	28.41	0.00	28.41	MEAN WEIGHT	109.45	122.37	0.00	116.29
					% SAMP. WT.	44.23	55.77	0.00	100.00

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 253 - ESPERANZA INLET
SAMPLE NUMBERS: 175,177,164,
SOURCE: TEST FISHERY
GEAR: HERRING SEINE
DATE: FEB 25/99 - MAR 1/99

SPECIMENS AT EACH AGE:		AGE											
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	6	72	88	89	15	4	6	0	1	19	300
% AT AGE		0.00	2.14	25.62	31.32	31.67	5.34	1.42	2.14	0.00	0.36	0.00	100.00
LENGTH - MEAN(mm)		0.00	154.83	178.43	187.97	199.92	203.60	214.75	218.50	0.00	225.00	187.05	190.38
- STD. DEV.		0.00	8.23	8.48	8.91	9.51	11.76	21.64	11.38	0.00	0.00	23.18	15.47
WEIGHT - MEAN(gm)		0.00	45.67	81.54	98.64	119.35	126.47	144.25	137.83	0.00	117.00	97.89	102.42
- STD. DEV.		0.00	7.17	13.86	18.92	20.32	21.57	36.02	13.39	0.00	0.00	39.84	27.28

HJOBT MATURITY STAGES:	MATURITY STAGE							
	1	2	3	4	5	6	7	8
NO. AT STAGE	1	2	1	34	172	86	4	0
% AT STAGE	0.33	0.67	0.33	11.33	57.33	28.67	1.33	0.00

ROE MATURITY (FEMALE):			SEX RATIO:		
=====			=====		
	IMMATURE	MATURE	SPENT	TOTAL	
NO.	21	130	0	151	NO.
%	13.91	86.09	0.00	100.00	%
% SAMPLE WEIGHT	2.46	23.52	0.00	25.98	MEAN WEIGHT
					% SAMP. WT.
					MALE
					FEMALE
					IMMATURE
					TOTAL
					144
					151
					5
					300
					48.00
					50.33
					1.67
					100.00
					97.82
					108.83
					41.00
					102.42
					45.85
					53.49
					0.67
					100.00

Table 14. (cont'd) Test fishing sample summaries by section

SECTION: 272 - BROOKS BAY

SAMPLE NUMBERS: 25, 26, 28,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: MAR 6/99 - MAR 9/99

SPECIMENS AT EACH AGE:		AGE											
=====		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	20	92	76	79	12	2	1	1	0	17	300
% AT AGE		0.00	7.07	32.51	26.86	27.92	4.24	0.71	0.35	0.35	0.00	0.00	100.00
LENGTH - MEAN(mm)		0.00	158.30	177.95	190.61	198.99	199.42	204.50	220.00	220.00	0.00	177.18	186.66
- STD. DEV.		0.00	6.60	10.75	8.32	9.65	6.53	2.12	0.00	0.00	0.00	21.68	15.77
WEIGHT - MEAN(gm)		0.00	54.30	79.50	97.80	114.97	112.83	119.00	139.00	174.00	0.00	84.47	94.19
- STD. DEV.		0.00	8.21	15.01	15.55	20.32	13.11	1.41	0.00	0.00	0.00	28.46	25.15

HJORT MATURITY STAGES:

		MATURITY STAGE							
		1	2	3	4	5	6	7	8
NO. AT STAGE		0	1	4	15	256	15	9	0
% AT STAGE		0.00	0.33	1.33	5.00	85.33	5.00	3.00	0.00

ROE MATURITY (FEMALE):

		SEX RATIO:				SEX RATIO:			
		=====				=====			
		IMMATURE	MATURE	SPENT	TOTAL	MALE	FEMALE	IMMATURE	TOTAL
NO.		4	152	3	159	140	159	1	300
%		2.52	95.60	1.89	100.00	46.67	53.00	0.33	100.00
% SAMPLE WEIGHT		0.40	25.14	0.04	25.58	87.96	100.05	35.00	94.19
						43.58	56.30	0.12	100.00

Table 15. Test fishing sample summaries by statistical area
=====

AREA: 2W - WEST COAST Q.C.I.
SAMPLE NUMBERS: 279,276,280,277,278,281,211,274,
SOURCE: TEST FISHERY
GEAR: HERRING SEINE
DATE: MAR 17/99 - MAR 24/99

SPECIMENS AT EACH AGE:												
=====												
	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	120	249	216	110	56	12	4	2	0	31	800
% AT AGE	0.00	15.60	32.38	28.09	14.30	7.28	1.56	0.52	0.26	0.00	0.00	100.00
LENGTH - MEAN(mm)	0.00	172.37	191.90	199.30	211.27	220.84	219.08	207.00	233.50	0.00	186.58	196.04
- STD. DEV.	0.00	7.89	10.91	11.01	11.19	10.23	11.77	24.34	14.85	0.00	18.26	17.41
WEIGHT - MEAN(gm)	0.00	71.28	106.87	120.94	147.55	168.21	165.83	134.00	187.00	0.00	98.48	116.11
- STD. DEV.	0.00	12.05	21.65	24.53	26.90	26.08	27.08	51.56	19.80	0.00	31.24	35.45

HJORT MATURITY STAGES:									
=====									
	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	4	604	191	1	0	0
% AT STAGE	0.00	0.00	0.00	0.50	75.50	23.88	0.13	0.00	0.00

ROE MATURITY (FEMALE):									
=====									
	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:				
					=====				
NO.	4	415	0	419	NO.				
%	0.95	99.05	0.00	100.00	%				
% SAMPLE WEIGHT	0.10	29.00	0.00	29.10	MEAN WEIGHT				
					% SAMP. WT.				
					MALE	FEMALE	IMMATURE	TOTAL	
					381	419	0	800	
					47.63	52.38	0.00	100.00	
					106.09	125.23	0.00	116.11	
					43.51	56.49	0.00	100.00	

Table 15. (cont'd) Test fishing sample summaries by statistical area

AREA: 2E - EAST COAST Q.C.I.
 SAMPLE NUMBERS: 192,179,191,182,186,186,
 SOURCE: TEST FISHERY
 GEAR: HERRING SEINE
 DATE: MAR 3/99 - MAR 28/99

SPECIMENS AT EACH AGE:		AGE											
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	17	14	369	98	49	15	3	3	5	27	600
% AT AGE		0.00	2.97	2.44	64.40	17.10	8.55	2.62	0.52	0.52	0.87	0.00	100.00
LENGTH - MEAN(mm)		0.00	158.82	183.29	191.53	193.47	204.43	205.00	216.33	215.67	221.80	184.70	192.31
- STD. DEV.		0.00	10.45	10.64	8.01	9.22	8.35	8.77	9.50	2.08	0.84	12.02	11.77
WEIGHT - MEAN(gm)		0.00	55.88	89.21	103.99	110.42	130.18	125.13	157.00	153.00	167.80	96.00	106.68
- STD. DEV.		0.00	10.26	18.86	15.92	19.30	22.52	19.83	14.53	14.93	17.98	20.76	22.34

HJORT MATURITY STAGES:

		MATURITY STAGE							
		1	2	3	4	5	6	7	8
NO. AT STAGE	% AT STAGE	0	0	0	6	529	62	2	1
		0.00	0.00	0.00	1.00	88.17	10.33	0.33	0.17

ROE MATURITY (FEMALE):

		SEX RATIO:			
		===		=====	
		IMMATURE	MATURE	SPENT	TOTAL
NO.		2	324	1	327
%		0.61	99.08	0.31	100.00
% SAMPLE WEIGHT		0.10	29.43	0.08	29.61
		SEX RATIO:			
		===		=====	
		MALE	FEMALE	IMMATURE	TOTAL
NO.		273	327	0	600
%		45.50	54.50	0.00	100.00
% SAMPLE WEIGHT		98.29	113.69	0.00	106.68
% SAMP. WT.		41.92	58.08	0.00	100.00

Table 15. (cont'd) Test fishing sample summaries by statistical area

AREA: 4 - SKEENA

SAMPLE NUMBERS: 184,140,146,207,144,145,198,148,157,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: MAR 9/99 - MAR 19/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	9	66	268	173	273	51	14	5	5	36	900
% AT AGE	0.00	1.04	7.64	31.02	20.02	31.60	5.90	1.62	0.58	0.58	0.00	100.00
LENGTH - MEAN(mm)	0.00	160.78	176.03	183.18	188.05	194.13	196.53	206.36	202.80	215.80	185.67	188.19
- STD. DEV.	0.00	12.11	10.15	10.13	10.61	8.95	9.80	9.83	6.30	20.91	12.51	12.31
WEIGHT - MEAN(gm)	0.00	53.67	77.67	90.95	100.45	113.11	116.25	137.71	126.20	157.80	96.31	101.09
- STD. DEV.	0.00	10.27	14.22	17.94	18.23	17.79	19.45	15.28	21.00	52.35	21.19	22.81

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	2	0	27	590	277	4	0	0
% AT STAGE	0.00	0.22	0.00	3.00	65.56	30.78	0.44	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO:	MALE	FEMALE	IMMATURE	TOTAL
NO.	20	397	3	420	NO.	478	420	2	900
%	4.76	94.52	0.71	100.00	%	53.11	46.67	0.22	100.00
% SAMPLE WEIGHT	1.05	25.86	0.02	26.93	MEAN WEIGHT	98.12	104.77	39.00	101.09
					% SAMP. WT.	51.55	48.37	0.09	100.00

Table 15. (cont'd) Test fishing sample summaries by statistical area

AREA: 6 - BUTEDALE
SAMPLE NUMBERS: 77, 86, 83, 93, 73,
SOURCE: TEST FISHERY
GEAR: HERRING SEINE
DATE: MAR 10/99 - MAR 21/99

SPECIMENS AT EACH AGE:		AGE										TOTAL	
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	5	39	239	155	26	2	6	3	4	21	500
% AT AGE		0.00	1.04	8.14	49.90	32.36	5.43	0.42	1.25	0.63	0.84	0.00	100.00
LENGTH - MEAN(mm)		0.00	150.20	168.95	179.88	187.46	192.19	197.50	212.33	216.33	216.75	179.33	182.67
- STD. DEV.		0.00	7.60	9.49	9.49	9.40	9.46	30.41	8.48	4.93	7.54	16.49	12.84
WEIGHT - MEAN(gm)		0.00	48.80	65.90	82.08	96.55	105.81	118.50	139.17	144.33	156.75	83.71	88.08
- STD. DEV.		0.00	10.64	15.02	16.86	18.61	23.10	37.48	20.17	27.50	31.54	29.38	23.24

[illegible]

ROE MATURITY (FEMALE):			SEX RATIO:		
=====			=====		
IMMATURE			MALE		
=====			=====		
	IMMATURE	SPENT	TOTAL		
NO.	19	3	233	266	233
%	8.15	1.29	100.00	53.20	46.60
% SAMPLE WEIGHT	1.37	0.00	25.25	83.52	93.43
				50.45	49.43
					0.12
					1
					500
					100.00
					88.08
					100.00

AREA: 7 - BELLA BELLA

SAMPLE NUMBERS: 134, 72, 136, 121, 208, 130, 76, 127, 133, 124, 81, 119, 71, 118, 87, 75, 126, 85, 123, 132, 200, 137, 79, 135, 131, 84, 95, 122, 128, 125, 92, 129, 82, 120,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: MAR 7/99 - MAR 23/99

SPECIMENS AT EACH AGE:

[illegible]

AGE

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	26	313	1431	1043	183	55	66	60	37	153	3367
% AT AGE	0.00	0.81	9.74	44.52	32.45	5.69	1.71	2.05	1.87	1.15	0.00	100.00
LENGTH - MEAN(mm)	0.00	155.19	168.08	182.89	191.49	195.47	203.45	214.38	217.37	220.84	180.16	186.51
- STD. DEV.	0.00	13.04	13.09	12.79	11.41	12.50	15.89	12.01	12.87	12.52	20.52	16.57
WEIGHT - MEAN(gm)	0.00	52.12	68.35	90.84	106.21	114.19	127.29	147.05	154.98	157.43	89.21	97.98
- STD. DEV.	0.00	14.02	17.22	19.71	20.90	23.13	31.58	24.60	33.40	26.93	31.51	27.83

HJORT MATURITY STAGES:

[illegible]

MATURITY STAGE

[illegible]

ROE MATURITY (FEMALE):

[illegible]

SEX RATIO:

01
04
09
00
09
00
01

	IMMATURE	MATURE	TOTAL
SPENT			

	IMMATURE		MATURE	SPENT		TOTAL		
NO.	46	1694		11	1751			
%	2.63	96.74		0.63	100.00			
% SAMPLE WEIGHT	0.44	26.96		0.00	27.39			
% SAMP. WT.								
MALE	1607	1751						
FEMALE	47.73	52.00						
IMMATURE	92.55	103.21						
TOTAL	45.09	54.78						
NO.	1607	1751						
%	47.73	52.00						
MEAN WEIGHT	92.55	103.21						
SAMP. WT.	45.09	54.78						

Table 15. (cont'd) Test fishing sample summaries by statistical area

AREA: 8 - BELLA COOLA

SAMPLE NUMBERS: 74, 78,

SOURCE: TEST FISHERY

GEAR: HERRING SEINE

DATE: MAR 15/99 - MAR 26/99

SPECIMENS AT EACH AGE:

	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE	0	2	24	50	90	9	1	3	2	0	9	200
% AT AGE	0.00	1.05	12.57	31.41	47.12	4.71	0.52	1.57	1.05	0.00	0.00	100.00
LENGTH - MEAN (mm)	0.00	155.50	166.75	177.48	186.44	187.56	195.00	202.33	190.50	0.00	170.22	180.73
- STD. DEV.	0.00	13.44	10.41	11.09	9.89	11.14	0.00	22.50	6.36	0.00	10.38	13.13
WEIGHT - MEAN (gm)	0.00	52.00	64.54	79.07	95.46	94.11	111.00	115.33	97.00	0.00	73.11	85.72
- STD. DEV.	0.00	12.73	12.14	15.04	18.49	13.49	0.00	35.95	15.56	0.00	16.43	20.49

HJORT MATURITY STAGES:

	1	2	3	4	5	6	7	8	UNKNOWN
NO. AT STAGE	0	0	0	1	131	65	3	0	0
% AT STAGE	0.00	0.00	0.00	0.50	65.50	32.50	1.50	0.00	0.00

ROE MATURITY (FEMALE):

	IMMATURE	MATURE	SPENT	TOTAL	SEX RATIO: === =====	MALE	FEMALE	IMMATURE	TOTAL
NO.	1	96	0	97	NO.	103	97	0	200
%	1.03	98.97	0.00	100.00	%	51.50	48.50	0.00	100.00
% SAMPLE WEIGHT	0.11	25.50	0.00	25.61	MEAN WEIGHT	85.96	85.46	0.00	85.72
					% SAMP. WT.	51.64	48.36	0.00	100.00

Table 15. (cont'd) Test fishing sample summaries by statistical area

AREA: 17 - NANAIMO
 SAMPLE NUMBERS: 27, 1, 14, 42, 15, 48, 43, 35, 2, 46,
 SOURCE: TEST FISHERY
 GEAR: HERRING SEINE
 DATE: FEB 24/99 - MAR 20/99

SPECIMENS AT EACH AGE:		AGE											
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		170	90	213	258	147	53	11	4	2	0	51	999
% AT AGE		17.93	9.49	22.47	27.22	15.51	5.59	1.16	0.42	0.21	0.00	0.00	100.00
LENGTH - MEAN(mm)		106.52	148.13	176.70	186.07	196.05	203.92	206.73	218.25	227.00	0.00	165.18	168.90
- STD. DEV.		5.77	15.47	13.26	12.96	12.79	11.91	13.66	6.75	0.00	0.00	39.81	34.90
WEIGHT - MEAN(gm)		13.12	44.51	75.33	91.29	105.97	121.51	132.18	151.50	157.00	0.00	72.27	73.99
- STD. DEV.		2.35	14.45	17.73	19.24	22.05	20.65	29.72	14.06	18.38	0.00	44.79	38.97

HJORT MATURITY STAGES:		MATURITY STAGE							
		1	2	3	4	5	6	7	8
NO. AT STAGE		159	33	3	188	508	76	20	9
% AT STAGE		15.92	3.30	0.30	18.82	50.85	7.61	2.00	0.90

ROE MATURITY (FEMALE):		SEX RATIO:				SEX RATIO:			
		=====				=====			
		IMMATURE	MATURE	SPENT	TOTAL	MALE	FEMALE	IMMATURE	TOTAL
NO.		93	301	9	403	405	403	191	999
%		23.08	74.69	2.23	100.00	40.54	40.34	19.12	100.00
% SAMPLE WEIGHT		4.75	19.19	0.00	23.94	84.17	92.28	13.81	73.99
						46.12	50.31	3.57	100.00

Table 15. (cont'd) Test fishing sample summaries by statistical area

AREA: 23 - BARKLEY SOUND
 SAMPLE NUMBERS: 16, 34, 50, 56, 165, 150, 59, 66, 22, 67,
 60, 49, 162, 36, 62, 58, 149, 267, 65, 170,
 52, 63, 19, 61, 57, 178, 169, 143, 64, 266,
 SOURCE: TEST FISHERY
 GEAR: HERRING SEINE
 DATE: FEB 21/99 - MAR 30/99

SPECIMENS AT EACH AGE:													
=====													
		AGE											
		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		88	52	651	628	973	200	67	30	22	10	184	2905
% AT AGE		3.23	1.91	23.93	23.08	35.76	7.35	2.46	1.10	0.81	0.37	0.00	100.00
LENGTH - MEAN(mm)		107.74	157.85	180.61	189.92	201.57	205.84	216.88	222.07	228.86	226.90	189.79	191.13
- STD. DEV.		7.25	11.89	10.39	9.77	9.69	8.92	9.78	9.42	9.17	11.87	25.62	21.88
WEIGHT - MEAN(gm)		15.52	52.50	82.00	97.12	118.90	125.49	144.81	150.53	163.82	156.70	101.78	102.37
- STD. DEV.		3.28	13.17	15.20	16.73	19.91	17.37	21.47	19.78	28.68	26.37	33.51	31.10

HJORT MATURITY STAGES:

		MATURITY STAGE							
		1	2	3	4	5	6	7	8
NO. AT STAGE		92	9	10	276	1922	575	20	1
% AT STAGE		3.17	0.31	0.34	9.50	66.16	19.79	0.69	0.03

ROE MATURITY (FEMALE):

		SEX RATIO:			
		IMMATURE	MATURE	SPENT	TOTAL
NO.		151	1213	10	1374
%		10.99	88.28	0.73	100.00
% SAMPLE WEIGHT		2.06	25.10	0.02	27.18
		MALE		FEMALE IMMATURE	
		1431		1374	
		49.26		47.30	
		100.37		110.48	
		48.30		51.05	
		0.66		0.66	

Table 16. (cont'd) NTC sample summaries by section
=====

SECTION: 243 - SYDNEY INLET
SAMPLE NUMBERS: 202,194,193,273,181,206,
SOURCE: OTHER
GEAR: OTHER SEINE
DATE: MAR 3/99 - MAR 31/99

SPECIMENS AT EACH AGE:		AGE											
=====		0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN	TOTAL
NO. AT AGE		0	3	87	130	252	61	11	5	1	1	49	600
% AT AGE		0.00	0.54	15.79	23.59	45.74	11.07	2.00	0.91	0.18	0.18	0.00	100.00
LENGTH - MEAN (mm)		0.00	154.33	184.95	195.67	205.02	208.75	211.45	223.40	244.00	222.00	200.27	200.18
- STD. DEV.		0.00	15.63	8.20	8.83	7.97	7.80	11.17	9.40	0.00	0.00	14.02	12.46
WEIGHT - MEAN (gm)		0.00	42.33	86.49	105.48	122.88	128.84	142.00	146.80	205.00	182.00	114.63	114.15
- STD. DEV.		0.00	10.02	14.87	19.15	17.93	18.44	25.11	17.63	0.00	0.00	29.65	24.79

HJORT MATURITY STAGES:
=====

		MATURITY STAGE							
		1	2	3	4	5	6	7	8
NO. AT STAGE		0	1	0	0	364	153	82	0
% AT STAGE		0.00	0.17	0.00	0.00	60.67	25.50	13.67	0.00

ROE MATURITY (FEMALE):
=====

		SEX RATIO:			
		=====			
		IMMATURE	MATURE	SPENT	TOTAL
NO.		1	280	23	304
%		0.33	92.11	7.57	100.00
% SAMPLE WEIGHT		0.08	27.74	0.00	27.82
				MALE	FEMALE
				IMMATURE	TOTAL
				296	304
				49.33	50.67
				105.58	122.50
				45.63	54.37
				0.00	0.00
				0.00	100.00

Table 16. (cont'd) NTC sample summaries by section
=====

SECTION: 253 - ESPERANZA INLET
SAMPLE NUMBERS: 88, 89, 90, 91, 94, 97,
SOURCE: OTHER
GEAR: OTHER SEINE
DATE: MAR 6/99 - MAR 7/99

SPECIMENS AT EACH AGE:
=====

	AGE										
	0+	1+	2+	3+	4+	5+	6+	7+	8+	9+	UNKNOWN TOTAL
NO. AT AGE	0	10	143	162	176	38	20	10	3	1	37
% AT AGE	0.00	1.78	25.40	28.77	31.26	6.75	3.55	1.78	0.53	0.18	0.00
LENGTH - MEAN (mm)	0.00	156.70	179.06	188.15	198.94	205.11	213.15	220.60	218.33	232.00	189.24
- STD. DEV.	0.00	7.15	9.89	9.08	9.72	9.81	7.75	24.96	7.77	0.00	20.89
WEIGHT - MEAN (gm)	0.00	50.20	74.61	87.62	102.74	113.34	120.20	131.90	145.33	114.00	90.46
- STD. DEV.	0.00	9.21	14.81	14.84	17.02	22.63	14.03	29.00	11.24	0.00	33.28

HJORT MATURITY STAGES:
=====

	MATURITY STAGE							
	1	2	3	4	5	6	7	8
NO. AT STAGE	1	1	0	1	121	200	239	37
% AT STAGE	0.17	0.17	0.00	0.17	20.17	33.33	39.83	6.17

ROE MATURITY (FEMALE):
=====

	SEX RATIO:			SEX RATIO:		
	IMMATURE	MATURE	TOTAL	MALE	FEMALE	IMMATURE TOTAL
NO.	1	157	88	352	246	2
%	0.41	63.82	35.77	58.67	41.00	0.33
% SAMPLE WEIGHT	0.04	16.17	0.17	88.70	97.41	94.50
				56.38	43.27	0.34

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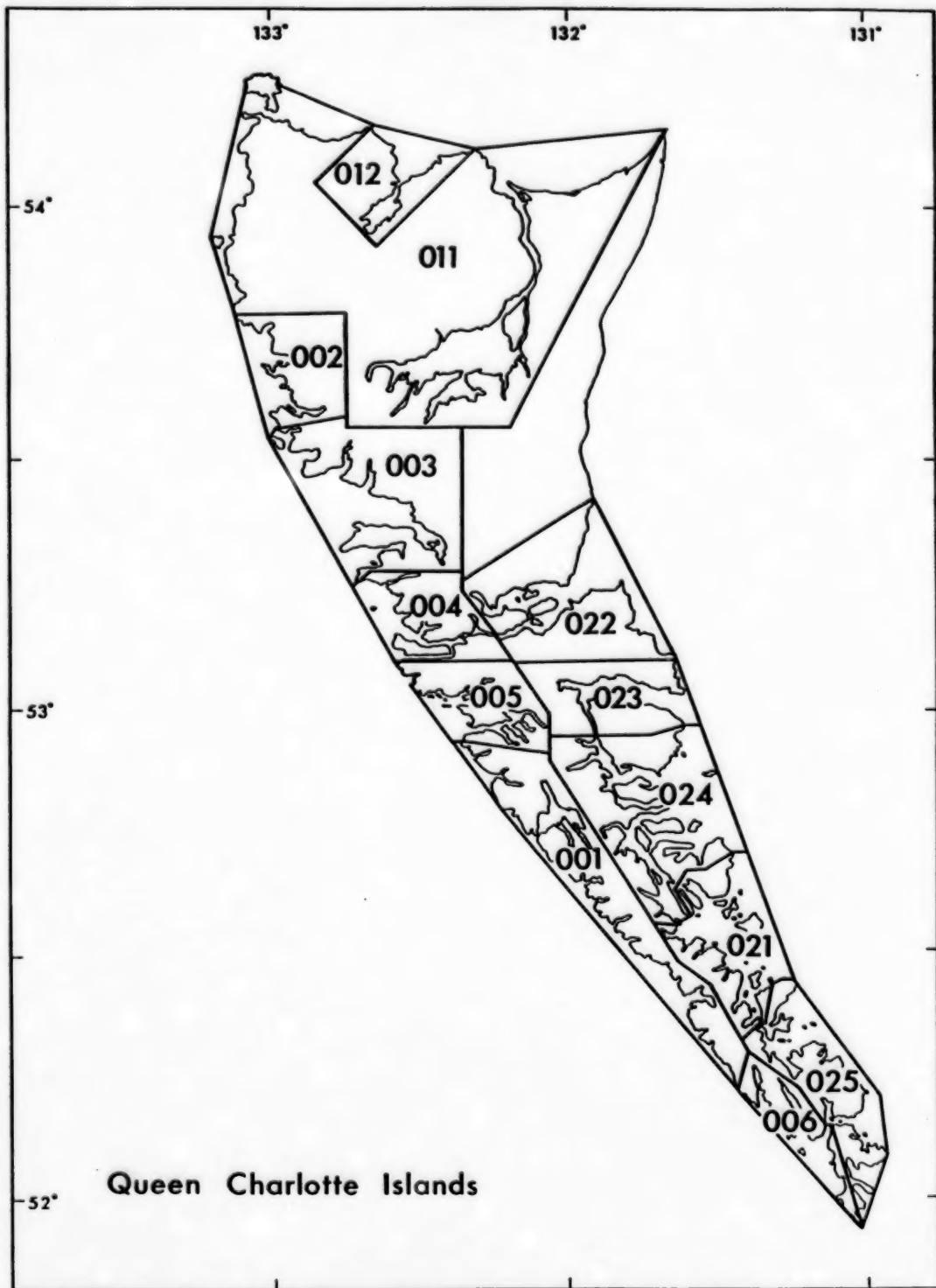


Fig. 1. Herring sections in the Queen Charlotte Islands region

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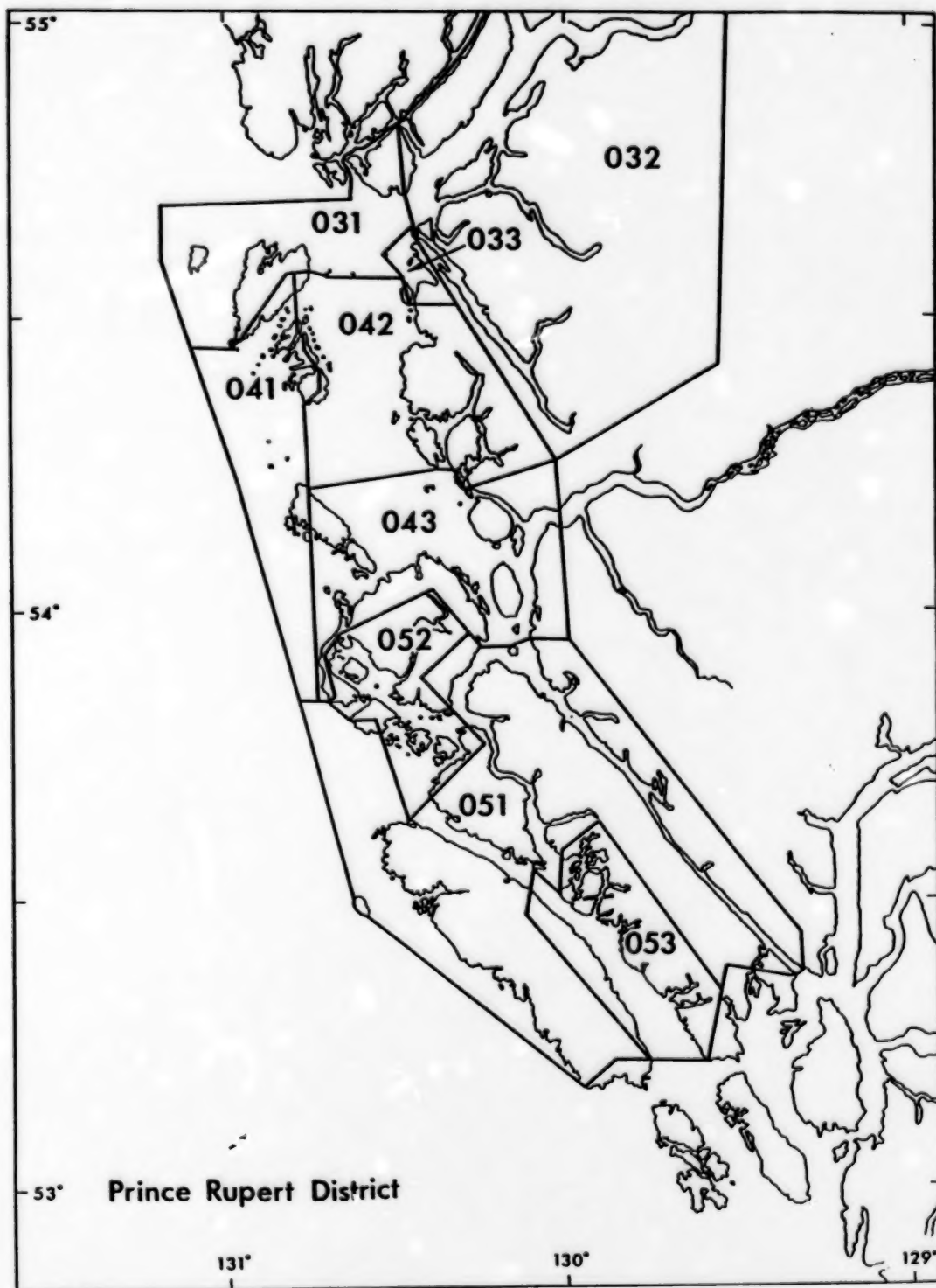


Fig. 2. Herring sections in the Prince Rupert District region

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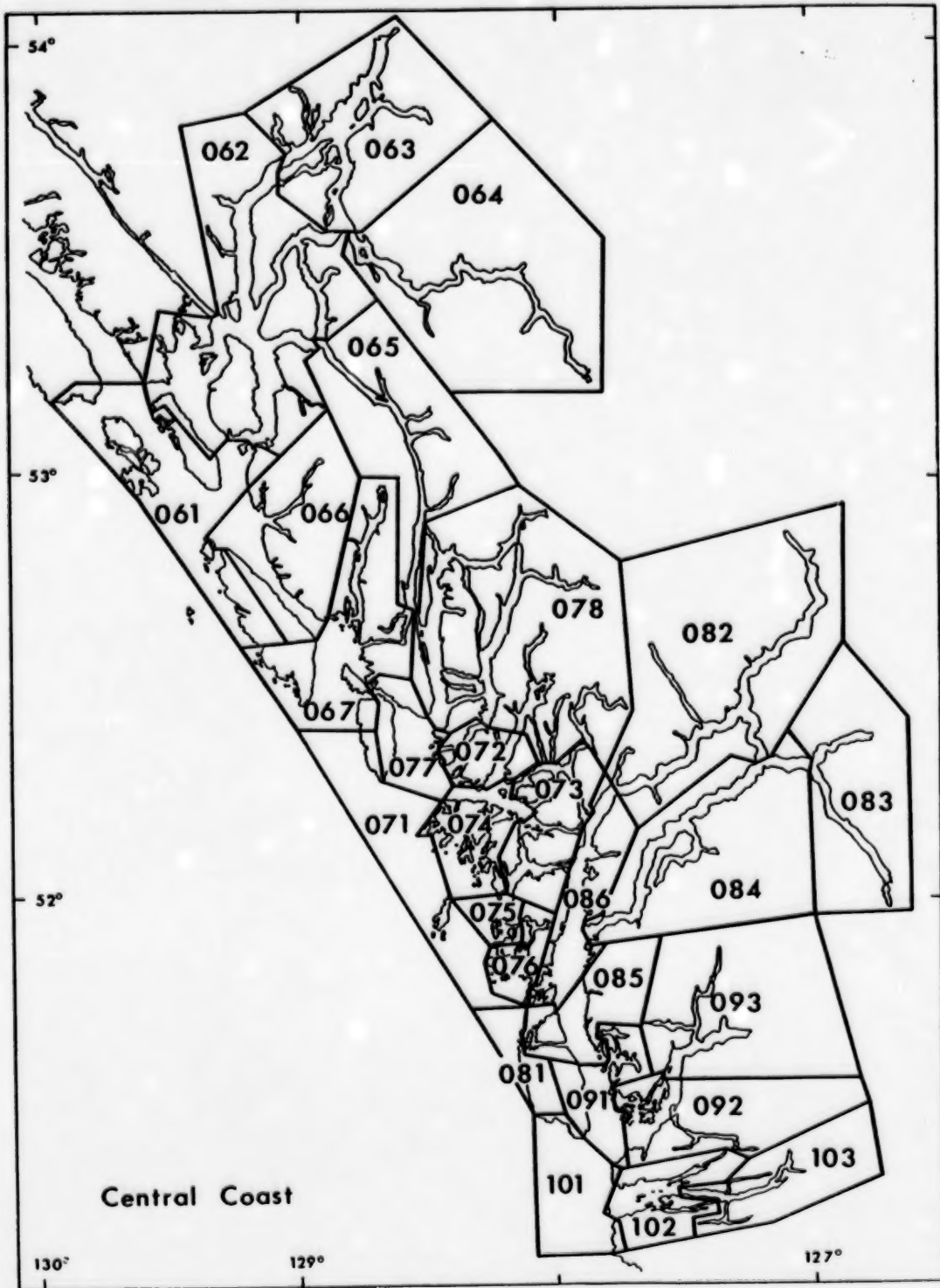


Fig. 3. Herring sections in the Central Coast region

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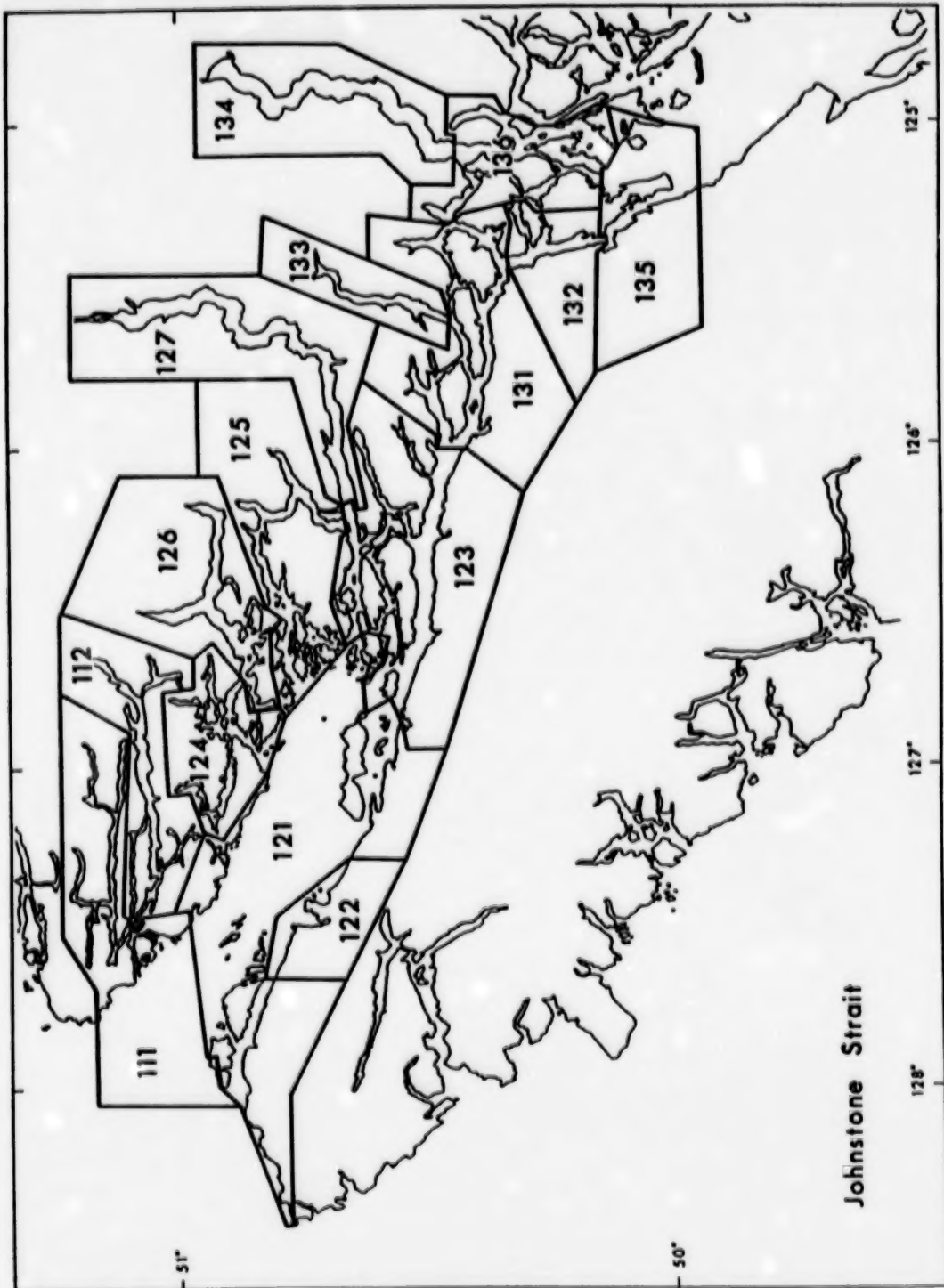


Fig. 4. Herring sections in the Johnstone Strait region

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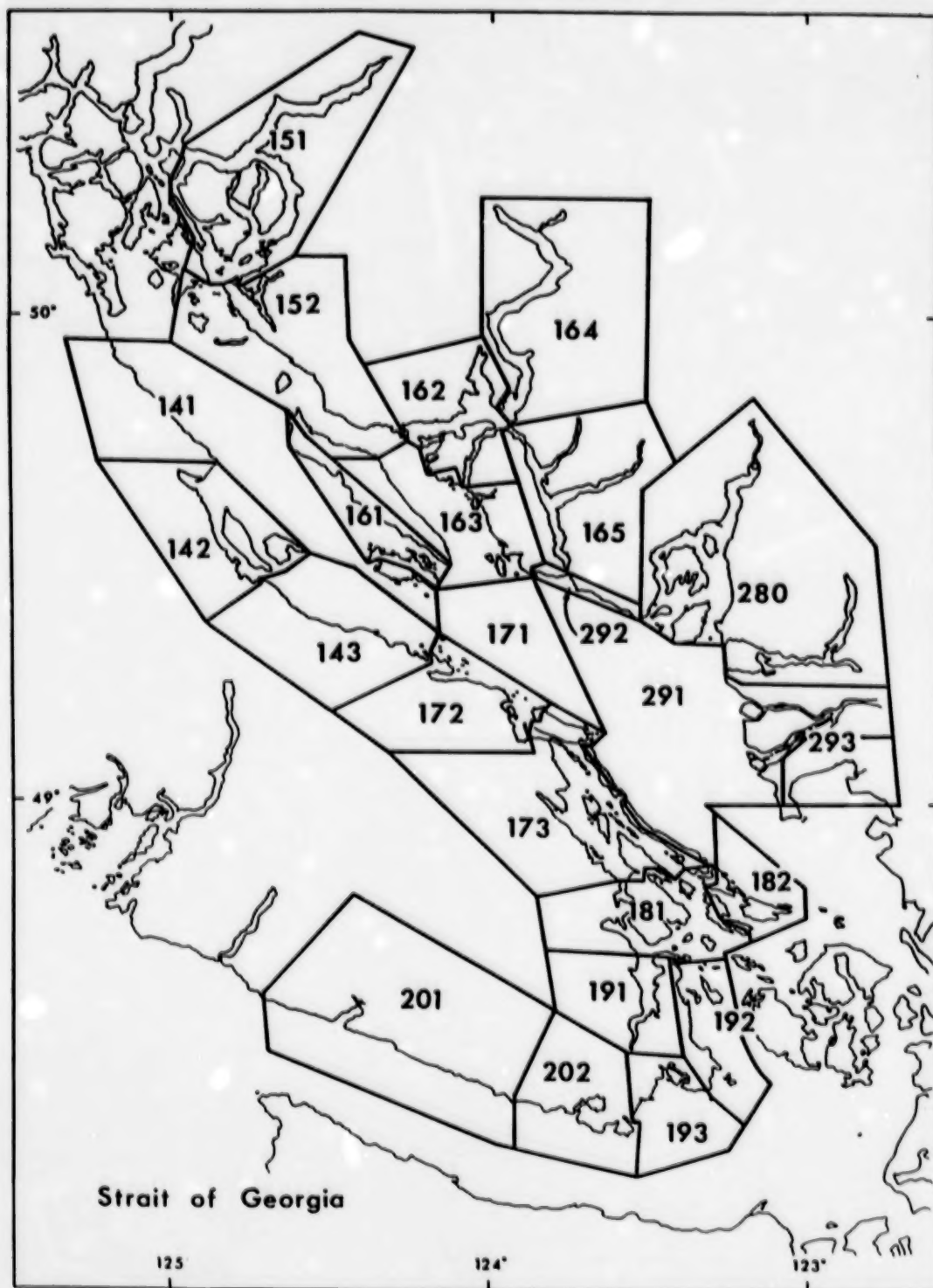


Fig. 5. Herring sections in the Strait of Georgia region

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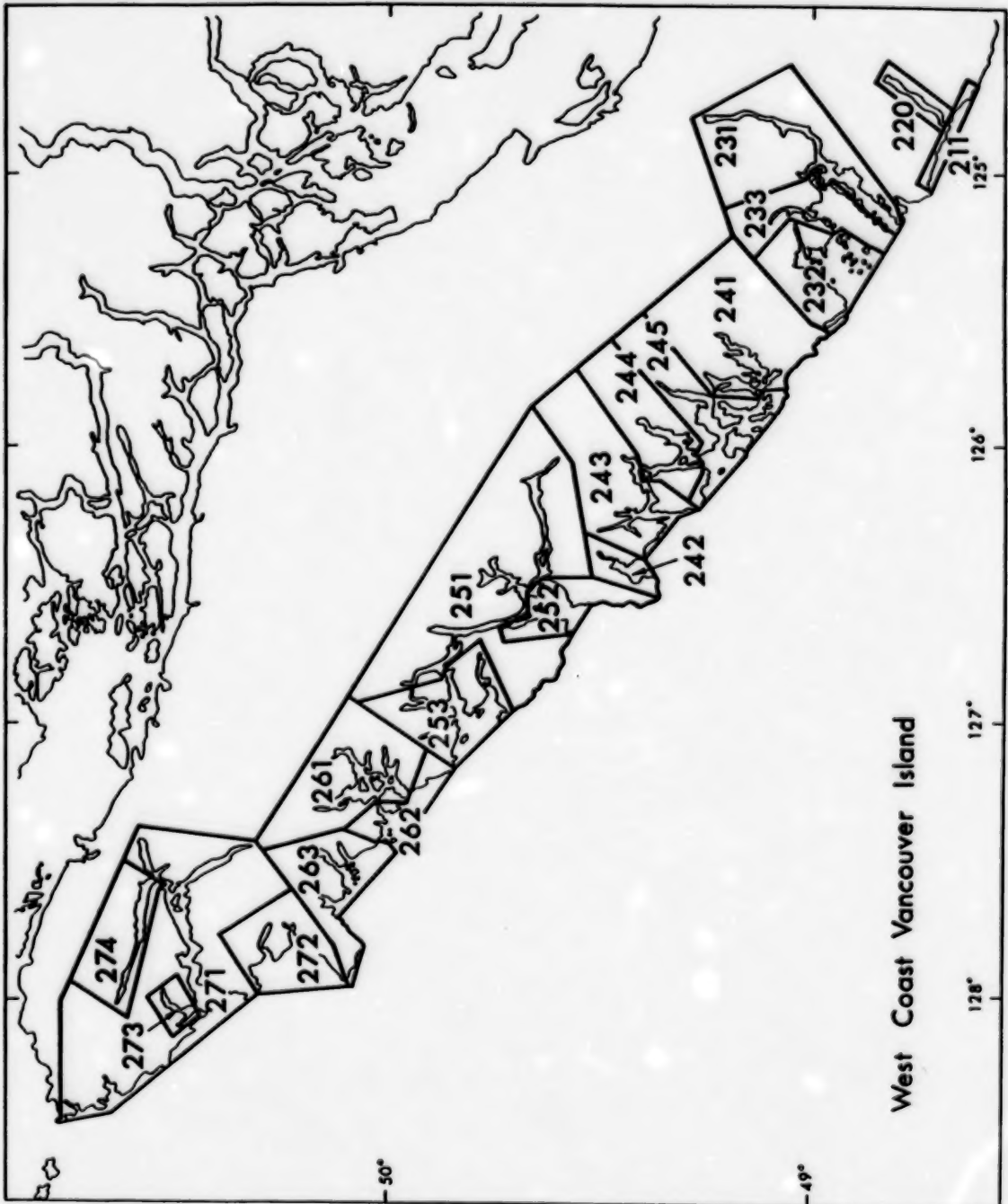


Fig. 6. Herring sections in the west coast of Vancouver Island region

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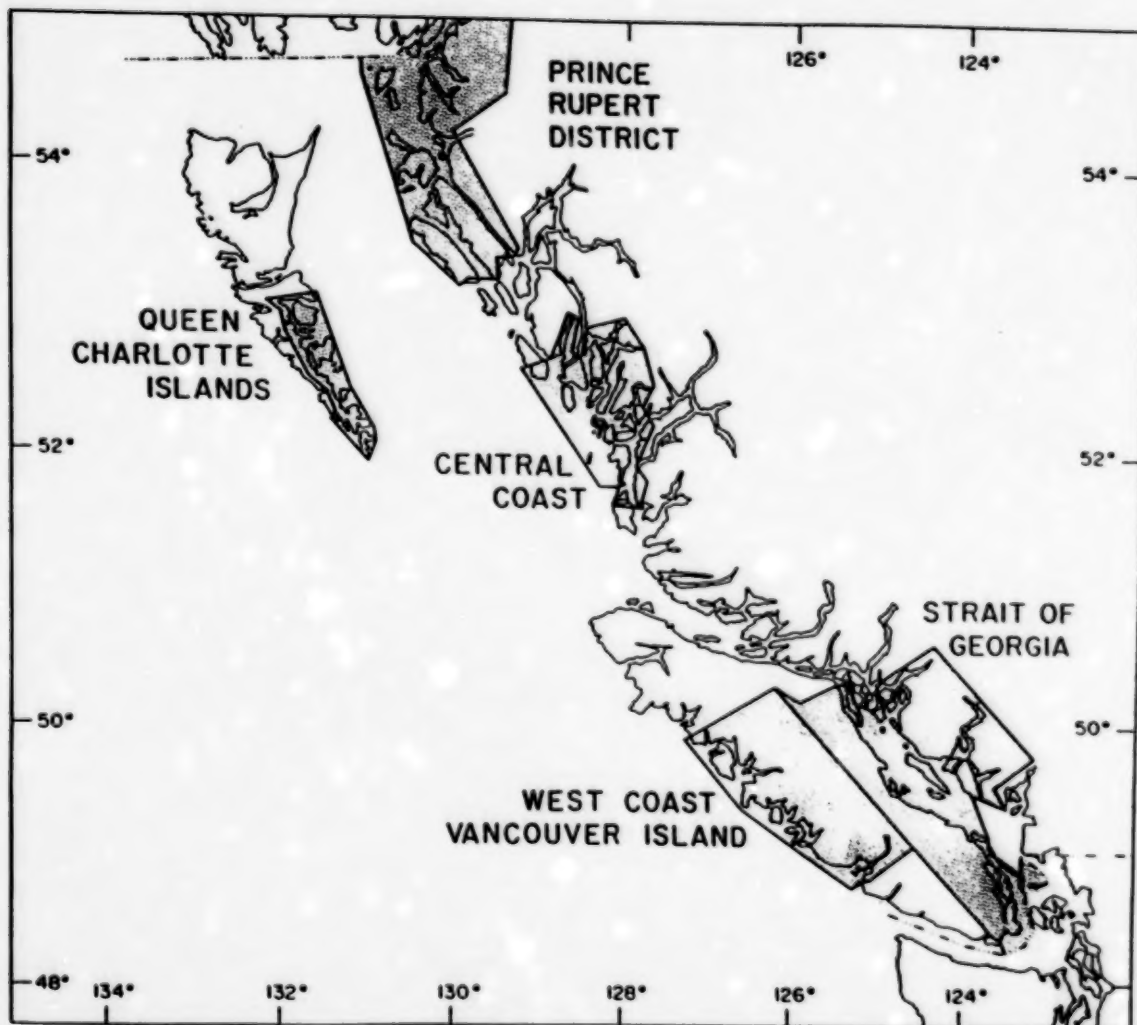


Fig. 7. Herring stock assessment regions in British Columbia